



# World on the Scales

## Development of a JRPG Game and a narrative game

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*Whilst all around our mother earth waits balanced on the scales*





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I would like to wholeheartedly thank my entire family, who supported me at all times during my time in college.

Also, I want to thank all my friends from college and those who are not from college for putting up with me during these 4 years.

Lastly, I want to thank myself for getting this far and for doing an exceptional job.



# ABSTRACT

*World on the Scales* is a JRPG that tells the story of Livia, a historian who, during one of her excavations, discovers a letter that could change the course of her country and the entire island by altering the concepts they had about their founding history.

The work consist to create a deep and developed narrative with extensive and evolving world building, while also providing depth to the characters so they do not feel hollow. Additionally, we will attempt to provide unique mechanics to the JRPG, such as an investigation system in various locations, as if the player were a historian recreating history.

Academically, this document consists of the final degree project report of the Video game Design and Development bachelor's degree at the Jaume I University.

**Keywords:**

JRPG, Narrative, Game Design, Characters, Lore, History.



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# INTRODUCTION

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This chapter is an explanation about which were the motivations that took to project's idea, which were the objectives initially fixed and how the idea started to be developed.

## 1.1 Work Motivation

The main motivation behind this work was to create an ambitious story. As I am focusing on the narrative and game design aspects of video game development for future projects, I wanted to undertake a project that would challenge these skills.

For example, I aimed to construct a world that went beyond a mere page and felt alive and interesting, as well as characters that felt real and compelling enough to not be forgotten as soon as gameplay began.

Additionally, one of the themes that fascinates me is the power of storytelling and its effects, which led me to focus the central theme of this project on the lies of propaganda and their impact on both individuals and the population at large.

Another motivation was to create a JRPG video game to experiment with design decisions. RPG is a game genre that can be defined as a game in which its system focuses on

Role-play aspect found in-game such as role-play as a hero or any specified class in-game [14]. This type of game allows for the addition of deep and lengthy stories, with multiple character arcs. Furthermore, it also permits experimentation with its basic mechanics in order to create a unique video game.

## 1.2 Objectives

Based on the motivation of the work, there are some goals to achieve:

- **Writing a enveloping story:** As previously stated, one of the main objectives of this TFG is not only to create a story but also to create an engaging story, applying all the knowledge gained during the course regarding the narrative block. For instance, the use of plot twists, flashbacks, red herrings, etc. as well as the use of the hero's journey structure to guide the narrative wherever necessary.
- **Develop a good characters:** One of the most important aspects that I value when analyzing an audiovisual work is the characters. The story can be as interesting as it may, but if the characters are nothing more than empty shells, it will not have the same impact. That is why I dedicated time to plan and develop the cast of characters. For example, the protagonist's friend may seem simple at first glance, but as the story develops, facets that were not perceived before begin to appear. And this is the case with all the characters throughout the story.
- **Build a vast world building:** Another characteristic that great JRPGs tend to have is their world building. How the story is developed and how it has reached its initial point are also very important. In fact, to this day, many people theorize about games from a decade ago because of the vast and mysterious nature of their world building. Therefore, in *World on the Scales*, world building is also tremendously important. Since the central theme is History with a capital "H", it was essential that everything that happened prior to the main story was complex enough to pique the player's interest.
- **Make interesting mechanics:** All good JRPGs have always tried to bring a new variation to the classic formula by developing new combat systems, level ups, etc. In this case, although the game follows a classic style, it will include unique gameplay mechanics for better differentiation from other titles in the same genre.

## 1.3 Environment and Initial State

This project started as an idea during the early years of my degree program. At that time, I wanted to apply everything I learned in the courses of hypermedia narrative and video game analysis, so I came up with the idea of creating a JRPG, a genre known for its deep stories.



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Therefore, I started developing the game without much control. To make the work easier, I decided to use RPG Maker MV[15], which reduced the programming workload, although I still did some programming. Consequently, at the start of the TFG, the game was not finished; it was just a loosely defined skeleton. For example, only one out of the five chapters was completed, although it was uploaded to the Itch.io page as a demo.

Many other things were also missing, such as a formal script, a technical script, and a document that contained everything related to world-building, characters, proper names, etc. All of these elements were developed from the first stage of the game, the first chapter, and this TFG was based on that work.

In addition, various development updates were published on Twitter, videos of the development process were shared on Itch.io, and dissemination was done through images, all of which required image and video editing.



# PLANNING AND RESOURCES EVALUATION

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This chapter shows the planning that has been followed to complete the project and the resources used to accomplish that purpose.

## 2.1 Planning

In this section, it is explain how the time in this work has been invested divided by tasks(see Figure 2.1) and a Gantt chart.(see Figure 2.2). In this planning almost every task is an implementation of a functionality or minor design tasks . Furthermore, there is also some community manager tasks added to complement the project. Of course, some time from the total has been dedicated to writing mandatory documents, like this one.

Task name	Start date	Finish date	Status	Approximate Hours Employed	Hours used	Description
<b>Final degree project preparation</b>	<b>01.12.2022</b>	<b>28.02.2023</b>	<b>Finish</b>	<b>20h about</b>	<b>20</b>	
Technical proposal	01.12.2022	27.01.2023	Finish	5h about	5	Do the thechnal proposal
GDD	28.01.2023	28.02.2023	Finish	15h about	15	Do the Game design document
<b>Create the game(Pre Work)</b>	<b>01.03.2022</b>	<b>16.03.2023</b>	<b>Finish</b>	<b>25h about</b>	<b>19</b>	
Find assets	01.03.2023	13.03.2023	Finish	10h about	9	Find the correct assets for the game
Task creation	11.03.2023	16.03.2023	Finish	15h about	10	
<b>Creating the game (Workout)</b>	<b>04.02.2023</b>	<b>10.04.2023</b>	<b>Finish</b>	<b>100h about</b>	<b>98</b>	
Create new maps	04.02.2023	10.04.2023	Finish	20h about	25	Create maps for the game
Add new missions	15.02.2023	08.04.2023	Finish	30h about	25	Create mission for the game
Add more features	12.03.2023	03.04.2023	Finish	25h about	30	Create more features to the gameplay
Gameplay mechanics	10.03.2023	02.04.2023	Finish	25h about:	18	Create more mechanics to the gameplay
<b>Creating the game (Post - Workout)</b>	<b>10.04.2023</b>	<b>24.04.2023</b>	<b>Finish</b>	<b>35h about</b>	<b>37</b>	
Find bugs	10.04.2023	22.04.2023	Finish	10h about:	15	Correct the existing bugs
Spread in social media	14.01.2023	24.04.2023	Finish	5h about	10	Twitter account
Rewrite text	10.04.2023	22.04.2023	Finish	10h about	12	If a text is wrong we need to rewrite
<b>Writting the script</b>	<b>16.02.2023</b>	<b>31.03.2023</b>	<b>Finish</b>	<b>100h about</b>	<b>107</b>	
Script	16.02.2023	28.02.2023	Finish	40h about:	45	Doing the script
Characters	01.03.2023	06.03.2023	Finish	15h about	25	Write all characters backstories
WorldBuilding	07.03.2023	09.03.2023	Finish	10h about	10	Write the diegesis
Pacing missions	10.03.2023	16.03.2023	Finish	15h about:	5	Writing the pacing of the missions
Technical script	17.03.2023	31.03.2023	Finish	20h about	22	Writting the technical script
<b>Prepare Presentation</b>	<b>24.04.2023</b>	<b>31.05.2023</b>	<b>Finish</b>	<b>30h about</b>	<b>25</b>	
Powerpoint	26.05.2023	31.05.2023	Finish	5h about	2	Do the powerpoint for the presentation
Project Memory	24.04.2023	25.05.2023	Finish	25h about	23	Do the project memory
				<b>Total hours used</b>	<b>Total real hours used</b>	
				300h about	306	

Figure 2.1: Planing of the project

## 2.2 Resource Evaluation

In this point is listed the software and hardware needed to do this project. Not all are essential but they help the correct development of it. And also an analysis about the theoretical amount of money and time that the project would cost is made.

- **Hardware:** The price of all components (and more) list here is upon the 500€
  - **CPU:** Intel(R) Core(TM) i5-3450 CPU @ 3.10GHz 3.50 GHz
  - **GPU:** Nvidia GeForce GTX 1050 Ti
  - **RAM:** 16 GB
- **Software:**

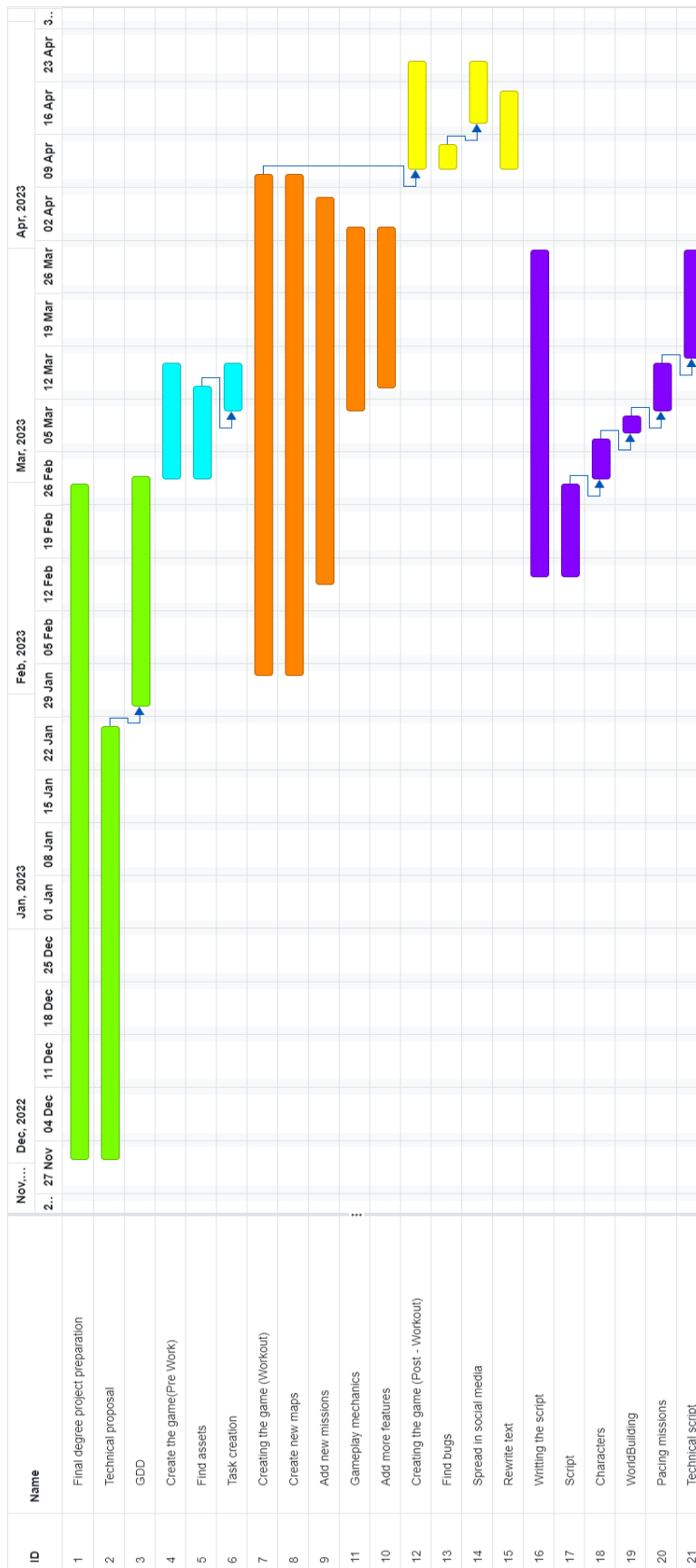


Figure 2.2: Example of a Gantt chart (made with Kplato)

- **RPG Maker MV(80€):** A game engine specifically created to do JRPGs games.
- **Visual Code(Free):** Is a code editor redefined and optimized for building and debugging modern web and cloud applications. Used for doing scripts in RPG Maker in JavaScript.
- **GitHub:** Is an Internet hosting service for software development and version control using Git. It provides the distributed version control of Git plus access control, bug tracking, software feature requests, task management, continuous integration, and wikis for every project.[6] Headquartered in California, it has been a subsidiary of Microsoft since 2018. Used to save the project in the cloud.
- **Adobe Photoshop 2022 (19,66 euros/month):** Is a raster graphics editor developed and published by Adobe Inc. for Windows and macOS. Used to edit images and sprites.
- **Adobe Premiere Pro 2022 (19,66 euros/month):** Is a timeline-based and non-linear video editing software application (NLE) developed by Adobe Inc. and published as part of the Adobe Creative Cloud licensing program. Used to edit some videos for Twitter.
- **Overleaf(Free):** This online LaTeX editor is the one that has been used to write this report since the used template has also been written by using LaTeX.
- **Google Docs(Free):** Is an online word processor included as part of the free, web-based Google Docs Editors suite offered by Google, which also includes: Google Sheets, Google Slides, Google Drawings, Google Forms, Google Sites and Google Keep. Used to do the reports and the GDD. LaTeX.

On the other hand, the estimated cost of the project depends on various factors. First of all, a considerable emphasis has been placed on the narrative aspect of the project, and thus the cost of the entire narrative part will be calculated first. To start with, creating the script has taken a total of 107 hours (including the script itself, world building, character creation, etc.). According to estimated data, a screenwriter earns around €26,931 per year [1]. That amounts to €12.95 per hour, which when multiplied by 107 gives a cost of €1,385.65 [2].

Moreover, the estimated salary of a Junior programmer is €21,500 per year[3]. Using the same calculation method as before and knowing that 174 hours of work are put into the game, the cost is €1,799.16. Finally, the project has also involved a small amount of work on social media, which will also be accounted for here. According to data (), the salary of a Community Manager is €32,600 per year, and for the 15 hours dedicated to this task, the cost amounts to €235.05.

The total cost of the project would be around €3,419.86.

# SYSTEM ANALYSIS AND DESIGN

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This chapter presents the requirements analysis, design and architecture of the proposed work, as well as, where appropriate, its interface design.

### 3.1 Requirement Analysis

First of all, we will analyze how the game works to have a clearer understanding of the necessary requirements. The first thing the player will see upon starting the game is a title screen with a menu(see Figure 3.1). In this menu, there are four options. The first one is *New game*, which will start the game from the beginning of the story. The next one is the *Continue* option. In the game, you will be able to save your progress, and this will be reflected in the *Continue* option. Another option is *Options*, where we can configure certain aspects, such as the volume of both the music and the effects, whether to walk or run by default, etc. Finally, there is the *Exit* option, which will exit the game. Once the player starts a game, there are several aspects to analyze. Firstly, this is a linear game, meaning that although the player has a certain degree of exploration capacity, they will not be able to go to certain places until they have completed a requirement.

This requirement will be given at key points in the game. For example, we start in a university. In this university, we can explore it at will, but if the player tries to go to the city without having completed a part of the story, then a character will make them go back. And this applies to the entire game.



Figure 3.1: Principal menu.

That being said, the player can move on a square grid, meaning that diagonal movements are not possible under any circumstances, imitating the typical style of many 2D JRPGs. To move, players can use the directional arrows or, if they prefer, the mouse. It works as follows: They select and click on a square of the grid (which is invisible, obviously), and the avatar will move through pathfinding to that specific point. Also, by holding down the *C* button, the character will move running, allowing the player to alternate between walking and running as they wish. The player can interact with the environment using the *Z* key. Some characters or objects will trigger conversations that can be read by repeatedly pressing the same key.

The player can also press the *X* button at any time, except during battles, to open the in-game options menu (see Figure 3.2). This menu is different from the title screen menu as it allows us to save the game and view our character's statistics, as well as other options such as our items, equipment, spells, etc. (see Figures 3.6, 3.5, 3.4, 3.3) To





Figure 3.2: Game menu.

navigate this menu, we will use the directional arrows, and to enter a submenu, we will press *Z*. To go back or exit the menu altogether, we can use the *X* key or the *ESC* key. To finish, we have the combat menu (see Figure 3.7), which we can navigate to order actions to the characters against the enemies. To do this, as in the previous menus, we will use the directional keys to choose an action. Within these actions, we have attack, defend, magic, and flee. Finally, with the *Z* key, we will select the action we want, while with *X* we will cancel said action.

### 3.1.1 Functional Requirements

Once the previous explanation is clear, it is easy to identify which are the functional requirements:

- **R1:** The player can start the game
- **R2:** The player can change the volume
- **R3:** The player can select and deselect the running
- **R4:** The player can load the game
- **R5:** The player can quit the game
- **R6:** The player can move through the map



Figure 3.3: Status menu.

- **R7:** The player can talk to characters
- **R8:** The player can open the menu
- **R9:** The player can check their objects
- **R10:** The player can check their stats
- **R11:** The player can check their equip
- **R12:** The player can check their skills
- **R13:** The player can save the game
- **R14:** The player can fight
- **R15:** The player can defend
- **R16:** The player can use magic



Figure 3.4: Equipment menu.



Figure 3.5: Ability menu.



Figure 3.6: Inventory menu.



Figure 3.7: Combat menu.

- **R17:** The player can flee

<b>Requirement:</b>	R1
<b>Actor:</b>	Player
<b>Description:</b>	The player starts the game pressing by the button <i>Start game</i>
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in the main menu.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. The player press the <i>Start button</i>.</li> <li>2. The game load the first level of the game.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.1: Case of use «CU01. *Start game*»

### 3.1.2 Non-functional Requirements

Non-functional requirements impose conditions on the design or implementation (e.g., to meet performance, safety, or reliability constraints). The non-functional requirements are:

- **R18:** The game will be playable on PC.
- **R19:** The exploration will be linear.
- **R20:** The UI must be simple.
- **R21:** The mechanics will be easy to learn.
- **R22:** The story will have a important role in the game.

## 3.2 System Design

This section presents the logical and operational design of the system to be carried out. To do the logical design is shown with a use case diagram (see Figure 3.8). And the descriptions of these cases are here:

<b>Requirement:</b>	R2
<b>Actor:</b>	Player
<b>Description:</b>	The player regulate the volume controlling the button <i>Change Volume</i>
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in the options menu.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. The player press the the buttons <i>+</i> or <i>-</i>.</li> <li>2. The volume adjust depending on the button pressed.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.2: Case of use «CU02. *Change Volume*»

<b>Requirement:</b>	R3
<b>Actor:</b>	Player
<b>Description:</b>	The player select and deselect the running option
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in the options menu.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. The player press the the button <i>running</i>.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.3: Case of use «CU03. *Select and deselect the running*»

<b>Requirement:</b>	R4
<b>Actor:</b>	Player
<b>Description:</b>	The player load the game
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in the main menu.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. The player press the the button <i>load</i>.</li> <li>2. The player will continue from where they left off.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.4: Case of use «CU04. *Load the game.*»

<b>Requirement:</b>	R5
<b>Actor:</b>	Player
<b>Description:</b>	The player quit the game
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in the main menu.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. The player press the the button <i>quit</i>.</li> <li>2. The player exit the game.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.5: Case of use «CU05. *Quit the game.*»

<b>Requirement:</b>	R6
<b>Actor:</b>	Player
<b>Description:</b>	The player quit the game
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. Having started the game (See CU01 in 3.1) and not being in a battle.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. The player presses the directional buttons.</li> <li>2. The avatar moves in a grid depending of the button.</li> </ol>
<b>Alternate Sequence:</b>	<ol style="list-style-type: none"> <li>1. The player clicks a zone on the grid.</li> <li>2. The avatar moves to a these specific zone on the grid.</li> </ol>

Table 3.6: Case of use «CU06. *Move the avatar.*»

<b>Requirement:</b>	R7
<b>Actor:</b>	Player
<b>Description:</b>	The player talk to NPCs
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. Having started the game (See CU01 in 3.1) and not being in a battle.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>Z</i> in front of a NPC.</li> <li>2. A text is displayed to the player regarding the NPC..</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.7: Case of use «CU07. *Talking to the NPCs.*»



<b>Requirement:</b>	R7
<b>Actor:</b>	Player
<b>Description:</b>	The player check the objects of the map
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. Having started the game (See CU01 in 3.1) and not being in a battle.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>Z</i> in front of an object.</li> <li>2. A text is displayed to the player regarding the object.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.8: Case of use «CU08. *Check the objects.*»

<b>Requirement:</b>	R8
<b>Actor:</b>	Player
<b>Description:</b>	The player open the menu
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. Having started the game (See CU01 in 3.1) and not being in a battle.</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>X</i> in any map.</li> <li>2. A menu is displayed to the player.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.9: Case of use «CU09. *Open the menu*»

<b>Requirement:</b>	R11
<b>Actor:</b>	Player
<b>Description:</b>	The player check the objects of the map
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must stay in the menu (See CU09 in 3.9).</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>Z</i> in the equip button.</li> <li>2. A new menu is displayed showing the equip.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.10: Case of use «CU10. *Check the equip*»

<b>Requirement:</b>	R13
<b>Actor:</b>	Player
<b>Description:</b>	The player can save the game
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must stay in the menu (See CU09 in 3.9).</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>Z</i> in the save button.</li> <li>2. The game will save and continue.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.11: Case of use «CU11. *Save the game*»

<b>Requirement:</b>	R14
<b>Actor:</b>	Player
<b>Description:</b>	The player can fight enemies
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in a battle).</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>Z</i> in the fight button.</li> <li>2. The avatar will attack the target enemy.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.12: Case of use «CU12. *Fight*»

<b>Requirement:</b>	R17
<b>Actor:</b>	Player
<b>Description:</b>	The player can flee the battle
<b>Preconditions:</b>	<ol style="list-style-type: none"> <li>1. The player must be in a battle).</li> </ol>
<b>Normal sequence:</b>	<ol style="list-style-type: none"> <li>1. Click the button <i>Z</i> in the flee button.</li> <li>2. The avatar will flee the battle and return to the map.</li> </ol>
<b>Alternate Sequence:</b>	None

Table 3.13: Case of use «CU13. *Flee*»

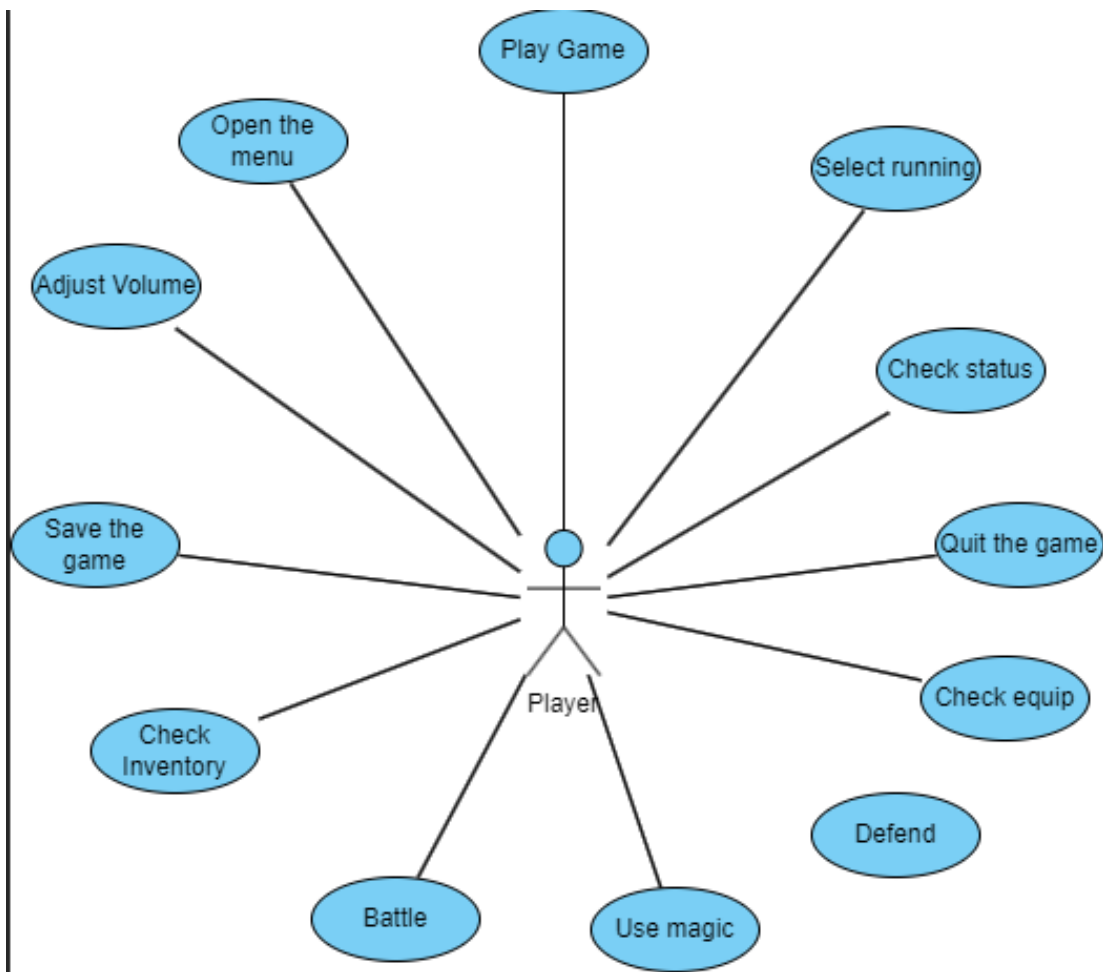


Figure 3.8: Case use diagram (made with Visual Paradigm)

### 3.3 System Architecture

The project is made with RPG Maker MV so the requirements are gonna be very low. The requirements are:

- Operating system
  - Windows 7+
  - macOS 10.12+
  - Ubuntu 16.04+.
- **Processor:** Intel Core2 Duo or better
- **Memory:** 2GB or more

- **Graphics:** DirectX 9/OpenGL 4.1 capable GPU
- **Storage:** 700 MB

The requirements have been taken from RPG Maker MV documentation.

## 3.4 Interface Design

The game's GUI is very similar to many JRPGs, obviously. That is to say, the GUI consists of a group of menus that open and close most of the time. For example, the menu we will have when we fight and thus be able to choose what option we want with time. This is done because the game is not intended to be frenetic, but rather for the player to think carefully about what actions they are going to take. That is why the menus have to be clear and explanatory. For example, all skills, items, weapons, etc. have their own explanation of what they do and their effect on the character, so that the player knows at any time which option is the best to choose or at least the one they prefer (see Figure 3.4, 3.5, 3.3) .

On the other hand, there are the texts that are displayed both in cinematics and when talking to NPCs. Most of them are based on a rectangle where the text is seen, which changes when you press the Z button, as well as the corresponding images of the NPCs. In fact, these images also change to give the conversation various emotions depending on the illustration that appears, such as sadness, anger, confusion, joy, etc (see Figure 3.9). The interface is located at the bottom edge of the screen. This allows the player to have a clear view of the game space for any possible animations that may occur, while also leaving space for the text since it is a very important part of the game. There is also a variation of the text (see Figure 3.10) where the background of the rectangle becomes transparent and the text is displayed in the middle of the screen. This is very necessary to give a cinematic touch to what is being told. In this variation, NPC images are dispensed with.

There are no other GUI elements as they are not really necessary. A mini-map, for example, would give too much information to the player and we do not want that. The health can be seen in the status menu, so it is not necessary to have the current health displayed on the screen at all times.

## 3.5 Artistic Design

As previously mentioned, the game is heavily inspired by classic JRPGs such as Final Fantasy VI. Therefore, a classic 16-bit style has been chosen for the 2D sprites and environments. Additionally, for the most important characters in the story, the artist @Seih (see figure 3.11) has been enlisted with a style that is closer to manga and anime, though not as extravagant as many anime styles, and closer to real life. For NPCs, assets from



Figure 3.9: Example of the text box.



Figure 3.10: Example of the middle text box.

RPG Maker MV have been used, which are based on preconceived anime-style images.



Figure 3.11: Example of the art done by @Seih

Regarding the game's aesthetics, since it draws inspiration from many cultures, an attempt has been made to align the visuals with the culture being referenced (see figure 3.12). For instance, there are tunics in Tiburnia, which are reminiscent of ancient Rome, and certain architectural and map design references.



Figure 3.12: Exameple of Vetrano, one character that is inspired by the Emperor Neron





Figure 3.13: The emperor Neron, reference in Figure 3.12

### 3.6 Game Design

One of the most important aspects of World on the Scales, besides the narrative, are the mechanics associated with it[20]. These mechanics allow us to immerse ourselves in the story and empathize much more with the characters, which is vital for a good narrative to work. In addition to the mechanics incorporated into the game, it is also important to highlight other equally important aspects of game design, such as pacing or level design. Pacing, for example, is another way to ensure that the narrative flows smoothly without exhausting the player. With that said, let's discuss each aspect of game design, starting with mechanics:

- **Mechanics:** One of the main activities in World on the Scales, besides exploration which we will discuss later, are the battles. As previously mentioned, these battles follow the JRPG style, and now we will delve into more detail on how these battles work (see figure 3.15). To begin with, at a high level, there are two types of battles in JRPGs. The first is a turn-based system. Depending on the speed statistic (agility in our case), the turns will be arranged in a certain way, both

for the enemies and for us. Then, each time it's someone's turn, they can make a single action. After this, it will move on to the next in the turn order. However, there is another type of combat, and that is the ATB or active time battle. In this combat system, what determines the speed is not turns, but how quickly or slowly the ATB bar is filled. When this bar is completely filled, we can choose the action. The same goes for the enemy. What is different about this system is that if we do not choose quickly, the enemy will empty and fill their own bars, allowing them to chain several actions before we can make one. World on the Scales has chosen the former system as it is ideal for a more reflective and strategic style. There is no urgency to decide quickly in order to avoid giving the enemy even the slightest advantage.



Figure 3.14: Example of a battle in World on the scales

One of the more specific aspects of the game design[17] in World on the Scales involves the special abilities of the three playable characters. For example, the protagonist Livia has a special ability called "Story." This ability has two uses, one within combat and the other outside of it. During combat, if we use the ability on an enemy, it will provide us with corresponding information about the enemy such as its level, weaknesses, and other relevant information. It is an important ability to gain knowledge about the enemy's abilities and weaknesses. As we know, information is power and with this, we can achieve a more comfortable victory. The other part of the ability involves using it on the world map where we can randomly excavate and find various items and money that are useful for the adventure.

On the other hand, another playable character, Musa, will have a diametrically

opposed ability. Her ability will not serve as support and can only be used during combat as Musa is a warrior. This ability, called *Cuts* (see figure 3.15), is composed of numerous cuts, each of which has a specific function. This ability will not cost magic points, but rather skill points. These points are obtained by attacking enemies, and once you have enough, you can execute one of the available cuts. For example, there is a cut called "Vampiric Cut" that not only deals damage but also heals Musa a percentage of the damage, emphasizing Musa's individualistic personality.



Figure 3.15: The *cut* mechanics

The last playable character is Augusto. This character serves as a support character throughout the adventure, so his abilities are focused on healing and support, such as cure, defense up, etc. He also has a few offensive wind spells so as not to be just a support character.

Another important feature of the game is the weapons and armor (see figure 3.16). Unlike many JRPGs where these objects do not have much importance and do not influence your character beyond increasing defense, in *World on the Scales*, both weapons and armor give characters both abilities and certain resistances, or for example, change the way you build your character. For example, there is a weapon called "Prologue" which not only increases our statistics but also gives us a unique ability "Hakaiken" that damages enemies with the holy element and increases your defense. And like this weapon, there are many other weapons and armors with unique abilities. This creates a real choice in character building[18].

- **Pacing:** Since *World on the Scales* is primarily a narrative video game, the pacing





Figure 3.16: Example of the variety of the equipment

of the game must be excellent, as the narrative is conditioned by how the player will take the course of the adventure. That is why, as the narrative is linear, the pacing will also be. While the player can explore wherever they want without restrictions, there are some areas that will only open up when certain story events occur. This ensures that the player does not get ahead of the story, but at the same time creates a false sense of freedom, since there is nothing that restricts them from going to the last city of the game, but if they want to go, they will have to level up a lot and won't be able to advance in the story, making them interested in following the proper pacing[11].

That being said, the structure of the game, like the story, will be divided into five chapters. Each of these chapters will take us to different areas (see figure 3.17) that will advance the story, thus opening up more options available. We will start at the university, our great home, and then head to Tacio, the nearest city to Tiburnia, the capital where the aforementioned university is located. After the incursion into this city, we will return to where we will be presented with a kind of side mission. This mission is not optional, but it gives the player a break and is very important for the pacing in general. Being a side mission with little or nothing to do with

the main story, the player can take a breather from all the information given so far, as well as provide a different challenge so the player does not get tired[4].



Figure 3.17: The island of Aer

After this, the world will open up completely, allowing us to go wherever we want, but making it clear which point on the map we need to go to in order to continue the story. For the last chapter, the story will completely dominate the pacing, taking away the player's option to explore, but this decision will be completely thought out. At the end of the story, our protagonist will be falsely accused of betraying her country, and will have to escape to another country. This achieves the effect that Livia, the protagonist, is no longer welcome in Tiburnia, her nation, and that she will have to go somewhere else to continue her adventure.

- **Level Design:** In *World on the Scales*, there are two distinct levels. The first is the level where you cannot engage in combat, and the second is the level where you can. These differentiations are made because it would be unrealistic to have fights with monsters in a city or inside an NPC's house, but it is plausible to encounter monsters that attack you in a forest. Additionally, this provides a respite for the player, knowing that there are safe zones where they can explore peacefully.

That being said, let's get more specific. Cities are among the most important levels in *World on the Scales*, in fact, they are abundant throughout the game, along with NPC houses. The cities and towns vary in shape and concept. For example, we have Tiburnia, the capital, which is a huge city with an amphitheater, shops, a prison, and the university. On the other hand, we have Valentia, another large city, although not as big, which features a grand cathedral that Tiburnia doesn't have. Then we have towns like Tacio, where vineyards stand out, or Baia, a bustling fishing village, or Baelo, a highly militarized town located on the border between two countries. All of these towns and cities have their own history and citizens, giving them a vibrant life of their own. This is crucial for immersing the player in the game world and making them feel like a part of it, rather than just an observer. Special mention goes to the university, the place where Livia works and where all the missions are initiated. This area is also quite large and bustling with life, including hidden secrets. It is a safe zone within a safe zone, a place where Livia feels she belongs. That is one of the intentions behind the university and why it holds such importance. The NPCs' houses are also significant, as well as the shops and taverns where one can rest, but they are often tied to the city or town they are located in. For instance, a mansion owned by a wealthy merchant in Tiburnia is quite different from a small house belonging to a farmer in the village of Tacio.

On the other hand, there are the dungeons and the world itself where we can have random battles[23]. The main map is divided into small segments that limit the monsters that will appear. For example, in the surroundings of Tiburnia, the monsters we will face will be low level, while the farther we get from it, the stronger enemies we will encounter. With this, we avoid the player going to places they cannot yet go, but without telling them directly, thus creating the illusion of freedom. However, the dungeons are important to pose a challenge to the player. In these, the level design aims to be labyrinthine, as disorienting the player will make it more difficult for them to complete the challenge. Each of these dungeons is in line with the theme proposed in the mission so as not to clash with what they tell the player, and obviously, they are teeming with monsters. These monsters are leveled according to the progress of the story, so if the player does not grind, they will be an acceptable challenge. It is also worth mentioning that the monsters are very varied in all aspects. Each of them has unique mechanics that make fighting with one or another very different, requiring the player to face the situation in different ways. To collect all these monsters, there is a bestiary that describes their abilities, items they drop, a brief description, and more.

### 3.7 Narrative Design

One of the main objectives of this undergraduate thesis was to create a narrative that lives up to the standards of this field of study. Developing all the skills acquired during the course to create an interesting and captivating story, with a vibrant and immersive

world, as well as charismatic and memorable characters. To achieve this, the process involved trial and error to determine what works and what doesn't, along with extensive research on cultures and narrative formulas[6]. Through this process, a vague idea that had been lingering in my mind took shape. I firmly believe that video games can be fully narrative-driven, which is why I wanted to focus on this aspect, even if it meant neglecting other important aspects of the game[21]. With that being said, let's analyze the various aspects of the narrative in *World on the Scales*:

- **Characters:** One aspect that I consider crucial for a good story is the characters[9]. The story may be as interesting as can be, but without well-developed characters, it will deflate and fail to engage the players. Characters need to be charismatic yet realistic, with an intriguing backstory that doesn't overwhelm the player. Creating compelling characters who evolve throughout the story is no easy task, but when accomplished, it greatly enhances the overall narrative[12]. In *World on the Scales*, the cast is diverse in terms of backgrounds, personalities, and motivations, even spanning different nationalities. With that in mind, let's analyze each character and explore the key elements that define them:

- **Livia(See figure 3.18):** Livia's main characteristic is that she is a historian, and she possesses a great passion for it. Interestingly enough, her affinity for history stems from an early age, without any particularly emotional or touching backstory. In Tiburnia, it is customary to choose one of the three major fields of study, and Livia decided to pursue history. She functions as both a research historian and an archaeologist, having even published a book titled "Life and Customs of Val'Mor." In addition to her academic pursuits, she teaches aspiring young historians, motivating them to follow the same path. However, one of her flaws is that she can become overly obsessed with history, and if you happen to engage her in conversation on the topic, she could go on for hours. One of Livia's particular interests lies in Val'Mor, especially its origins and downfall.

Livia is somewhat shy, particularly around strangers. However, with her friends, she is much sweeter and, above all, loyal. She would never betray a friend unless the circumstances were exceptionally grave. Her sense of humor tends to be acerbic, grounded in irony, but, as previously mentioned, she only expresses this side of herself among close friends. Consequently, she has a reputation for being quite serious in the eyes of others. Nevertheless, she strives to improve this aspect of herself and is currently attempting to voice her opinions, albeit timidly, to the academics in her surroundings.

Like most individuals, Livia has superiors. In fact, she has two direct superiors. Her former professor and the person she trusts the most regarding historical opinions is Caracalla. Her other superior, Severo, is much stricter. Although she may not admit it publicly, Livia is somewhat intimidated by him. His stern expression, aggressive gaze, and acerbic critiques of her work, coupled with her introverted nature, have instilled a certain fear within her.



Figure 3.18: Livia, the protagonist

In fact, if it weren't for her other superior, it is likely that she would have abandoned her career. Surprisingly, one thing that surprises people is that Livia spent some time in the military. It is during this time that she acquired knowledge of martial arts and magic. From a young age, she was taught that other countries were invaders and illegitimate, while they were the true and rightful owners of the island. Each country presents its own biased perspective and distorts history completely in their favor, making it easier to manipulate the population. However, Livia is not a fervent nationalist; she simply repeats what she has been indoctrinated with, without much critical thought. In Tiburnia, manipulation tends to rely more on tradition and being the heirs of Val'Mor. Nonetheless, Livia is not at all elitist and always strives to act in the best possible manner. This is somewhat unusual since scholars often exhibit a great deal of arrogance towards other citizens, and even among different academic disciplines, there are rivalries. However, Livia is indifferent to these dynamics due to her shyness, which makes it difficult for her to make many friends. Nevertheless, she has several friends from different schools. Her best friend is Augusto, whom she met during their military service, and they both pursued history together. Their close relationship led to rumors that



they were a couple, as often happens when a boy and a girl are very close. However, they are both clear that their relationship is purely platonic. Livia enjoys having someone as outgoing and entertaining as Augusto by her side, someone with whom she can discuss history in a friendly manner. In turn, Augusto feels that he can trust Livia with his life. The two complement and support each other perfectly.

Lastly, Livia is an orphan[8]. Both her parents died in the wars since they were military personnel. For a significant part of her life, she was raised by her aunt and uncle. She is immensely proud of her parents for sacrificing themselves for their country, but deep down, she harbors resentment for them, feeling abandoned. However, she never expresses these sentiments and keeps them to herself. Naturally, she misses them greatly. Her relationship with her aunt and uncle is cordial. It's not that she dislikes them or anything of the sort. In fact, she is grateful to them for taking care of her. However, it's evident that an uncle is not the same as a father. That's why she moved out as soon as she could and now lives alone near the university. She occasionally visits her aunt and uncle to see how they're doing and provides them with financial assistance as a gesture of gratitude for all the years they took care of her, although they insist it's unnecessary.

- **Augusto (See figure 3.19):** Livia's best friend is very outgoing and playful. He can strike up a conversation with anyone without any fear. This often leads people not to take him seriously, although when he wants to, he can become very serious, especially when it comes to history-related topics. However, he doesn't enjoy being in that state for long, and he dislikes getting angry with someone. He has a slim but muscular build and loves to eat. His favorite hobby is going to the private baths reserved for university researchers and relaxing there for hours alone. Unfortunately, his work as a researcher doesn't allow him to do it as often as he would like.

His past is somewhat turbulent. He was born into a wealthy family but as the second son. He was always overshadowed by his brother, which led him to have no interest in any particular subject. This earned him the disdain of his parents, who wanted both their sons to be successful and behave according to their status. Thus, it created an endless cycle where Augusto's father, Flavio, looked down on his son because he wasn't what he wanted him to be, and as a result, Augusto further reinforced his behavior. This dynamic persisted for several years. The breaking point that led him to leave home was a violent fight where his father hit him for the first time. He witnessed his mother not even attempting to calm the situation, and his brother took his father's side (their relationship was never good either). Consequently, he decided to leave his family at the age of 20. With nowhere else to go, he went to the only place he knew would accept him and provide shelter: the military. It was there that he met Livia, and they quickly became friends. It was the first time in his life that he felt happy. Furthermore, Livia introduced him to



Figure 3.19: Augusto, the friend

history, and for the first time, he found something he was genuinely interested in. He loved learning about his origins and found solace in discovering people from the past who had faced similar or even worse situations than his own. However, this had a negative consequence, particularly in the military. His nationalism grew rapidly as well. The military indoctrinated him to believe that all other countries were nothing more than garbage, combined with the allure of Val'Mor's research and its promises of glory.

When Livia finished her military service and went to university, Augusto also accompanied her. He felt that being close to Livia was the best choice since she was his first friend and the one who truly understood him. Both of them ended up at the university, but Augusto leaned more towards research, although occasionally he joins Livia on her excavations out of simple curiosity and because they know that together, it is very unlikely for any local beasts to disrupt their dig.

- **Severo (See figure 3.20):** Severo is one of the two superiors that Livia has, with the other being Caracalla. He is a history scholar, but for reasons known to few, he is simply in a supervisory role. He is very dry, speaks very few words, and is not prone to joking. He has very few friends. Many attribute

this to his age and his inability to advance in the university hierarchy. With a somewhat gaunt appearance and completely bald, he is a pragmatic person who will not do anything unless it is necessary. For example, he eats only what is necessary to survive, following a strict diet, but he will never indulge in a feast or attempt to cook something exotic on his own as he believes it to be a waste of time. As can be observed, he is very direct, and his criticisms lack any possible tact. Many times, students have ended up crying or even abandoning their studies to pursue other paths as a result. He has been reprimanded several times, but he remains the same. The reason he has not been dismissed yet is because when it comes to history, he is the best of his generation, surpassing even the higher-ranking officials. The main reason for this is his past.

Although it may seem unbelievable, in the past, Severo was very different from how he is now. He radiated happiness, and history was his passion. From the beginning, he realized his ability to understand and connect concepts, to derive historical theories that closely resembled what had occurred. He also had a prodigious memory, being able to recite all the emperors, their dates, and the entire composition of the Senate during their respective reigns. Severo was married to Drusa. Although not as brilliant as Severo, she worked just as hard, if not harder, and together they formed a formidable team.

However, an event occurred that would change Severo forever. His wife was dissatisfied with how things were handled in the field of history. She observed how other sciences had complete freedom to investigate whatever they wished without repercussions. This was not the case in the realm of history, where certain topics were off-limits, and the sources could not even be consulted, or worse, there were no sources available. One night, she and Severo discussed this, and he suggested that she conduct independent research since it is the duty of a historian to explore a subject, even when there is no existing material. Drusa found this to be a good idea and began investigating the fall of the Val'Mor empire, a taboo topic.

It was then that the higher authorities in the country found out and instructed Drusa to stop her research. Although she was frightened by the possibility of being detained and imprisoned, her investigation was on the verge of uncovering something significant, so she decided that the risk was worth it. One night, Drusa returned to Severo's house to tell him what was happening. She had discovered something incredible about the country and the fall of Val'Mor, but she intended to share the information calmly in the morning. Severo noticed that she was completely agitated and asked her to tell him what was going on, but she refused, saying that she needed rest. The next day, city guards arrived with orders to arrest Drusa. Severo protested and told them to leave his house, but the guards punched him, knocking him to the ground. Witnessing this and nearly in tears, Drusa turned herself in, leaving Severo alone and confused.



Figure 3.20: Severo, the supervisor of Livia

After three days of trying to find out what was happening, Severo was able to see Drusa, but not in the way he had hoped. Drusa was sentenced to death for treason and lying to Tiburnia, and on that same day, she was executed in the square of the condemned. She accepted all the charges and vehemently denied that her husband had been involved in any way, that he was completely innocent, and that it was not her fault for marrying a treacherous scum. The helplessness Severo felt was unparalleled, and he cried inconsolably, with a void in his chest.

Thanks to Drusa's words, Severo did not face any repercussions, but due to his connections with his wife, he was not allowed to advance in the university ranks. However, this meant nothing to Severo. Since that day, he has never forgiven himself for urging Drusa to investigate the fall of Val'Mor. If only he hadn't insisted on it, if only he had kept quiet for once in his life. That is how he gradually distanced himself from people, becoming more and more antisocial with each passing year.

- **Caracalla (See figure 3.21):** Caracalla is the other supervisor of Livia. He is an amiable elderly individual with few aspirations other than teaching history at the university. You will always see him carefree on campus, with a

permanent smile on his face. He is highly popular among students due to his effective teaching methods and minimal criticism. In fact, his pass rate is 90 per cent, which is why many students maintain contact with him even after completing their studies. It is not uncommon to find his study room filled with dedications from various students. However, he is not as skilled a historian as others, which is why he remains a mere professor without advancing further. His main issue is that he does not place much importance on sources, often leading to grave errors. He is lenient with rules and generally does not mind if his students bend them.

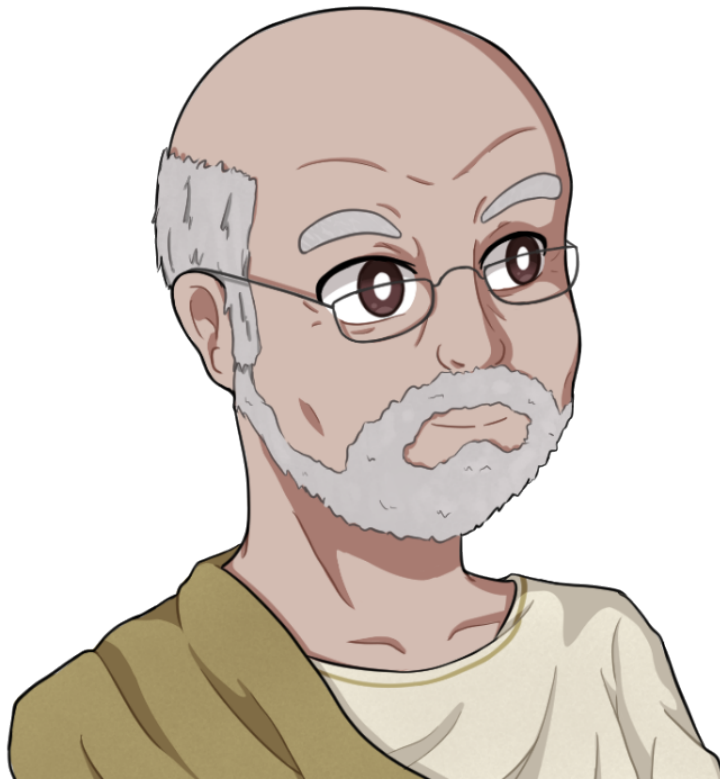


Figure 3.21: Caracalla, the other supervisor

He is somewhat overweight as he does not follow any specific diet considering his age. Nevertheless, thanks to his daily morning walks, he is relatively healthy. His favorite pastime is spending hours sitting in the university park after his morning walk, reading all sorts of books. This habit often earns him reprimands, especially from his colleague Severo, who urges him to take his work more seriously. However, Caracalla always responds with a laugh, saying, "At my age, does it really matter how I approach it?" Despite his amiable appearance, he is tremendously racist.

From a young age, he accepted the propaganda that was instilled in him and

never questioned whether it was right, a perspective that has only worsened with age. However, he tends to avoid expressing political opinions, so most students are unaware of this aspect of his personality.

- **Vetranio (See figure 3.22):** Current Emperor of Tiburnia. He has been reigning for over 10 years since the Senate chose him over more qualified candidates. Rumor has it that he obtained this position through bribes, as he is one of the wealthiest citizens in the empire. However, the Senate has kept this election highly secretive, but where there's smoke, there's fire. On the other hand, Vetranio claims loudly that he was nobly chosen based on his abilities, abilities that are sorely lacking. Not that he is inherently a poor ruler, especially because he doesn't actually govern anything, as he has become a mere puppet of Joviano, the most powerful senator.



Figure 3.22: Vetranio, the actual emperor

Nevertheless, Vetranio, at 35 years old, regardless of his inability to govern, should at least appear virtuous, as he squanders money on parties and his own pleasures. The parties held at his house are well-known, attended by the most influential families throughout Tiburnia, including wealthy landowners and merchants. His extravagance does have one positive aspect, and that is his love for embellishing Tiburnia with all kinds of sculptures, palaces, temples,

and more. In fact, he is a fervent enthusiast of the performing arts. He has been seen acting as a regular actor in many plays, and everyone agrees on one thing: he is worth more as an actor than as an emperor. Despite all the parties and lavish meals, Vetrano is surprisingly athletic and even handsome. Without fail, he trains every day to perform with agility and not fall behind other actors. Simultaneously, he exercises his voice and expressions daily to maintain the same level. Governing is secondary, as Joviano takes care of everything.

- **Joviano (See figure 3.23):** Joviano is the most powerful senator within the Senate. He started as a humble servant of a local merchant but soon realized he had a special charisma for everything related to commerce. Selling anything came easily to him. His clients were always captivated by a mixture of friendship, intimidation, and his ambitious gleaming eyes. He eventually left the merchant to establish his own business. His former boss became angry and envious because he knew Joviano was superior; in fact, his own business began to decline once Joviano left.

Nevertheless, this merchant was influential enough to convince other merchants to unite against Joviano. However, Joviano remained undeterred and despite all obstacles, managed to expand his business. The alliance of merchants continued to pressure him until one day, Aurelius, Joviano's former boss, was found dead under mysterious circumstances. With tears in his eyes, Joviano publicly blamed the other merchants in the alliance, accusing them of killing Aurelius to gain control of his business. The merchants denied everything, but evidence was found in their respective homes, leading to the arrest of the four merchants and Joviano. In order not to leave their apprentices helpless, Joviano took over all their businesses. Clearly, this was all part of Joviano's plan to dismantle the merchant league and seize control of the entire trading area. From that position, he began to grow at an astonishing pace, becoming one of the most influential merchants in Tiburnia. But Joviano wanted more, and after careful consideration, he decided to enter politics. However, he was not keen on becoming emperor, as it was too conspicuous, so he aimed to become the most influential senator of all.

He quickly climbed the political ladder, thanks to his influence and various unscrupulous acts. Within two years, he became a senator, breaking the record as the minimum requirement for senatorship was five years. He spent about two years without making much of an impact in the Senate until he decided to make a move. He allied himself with another wealthy merchant, Vetrano. Joviano promised him the position of emperor if he could handle all matters of governance. Vetrano readily accepted, and together they planned the assassination of the emperor. It was a discreet murder, administering poison in small doses until he died from what appeared to be an illness. They bribed a physician to provide a false autopsy report. With all this in place, the only task remaining was to install Vetrano on the throne as emperor. It was



Figure 3.23: Joviano, the emperor in the shadows

not difficult; with bribes here, intimidation there, and a few assassinations, Vetrano was proclaimed emperor.

Joviano then had a free hand to govern Tiburnia as he pleased, appointing senators loyal to him in order to enact laws that would benefit him. Over time, Joviano has become increasingly imperialistic. He has observed his businesses stagnating due to a lack of new products and the saturation of his current markets. This has led him to set his sights on other territories, with a newfound determination to conquer them more forcefully than before. Joviano's ambition knows no bounds, and he is willing to devour all countries to establish himself as the absolute ruler of the island.

- **Musa (See figure 3.24):** One of the great warriors that Malal has is Musa. So much so that she has been entrusted with one of the most dangerous missions of her life: to infiltrate Tiburnia and find out what the hell is going on there. She knows that it is very likely that she will end up dead, since entering without being detected and then spying is something very difficult, almost impossible, but she is completely proud that her country has chosen her for such a mission. Musa has a vast knowledge of everything related to war: martial arts, stealth, use of weapons, strategy, first aid, etc., and she



excels in all of them.

Seriousness is what characterizes Musa the most. It is not that she is rude or antisocial, she is simply a woman of few words. This is because in Malal's army, personalities of those within it tend to be transformed, as they believe that a powerful army cannot be built through smiles and jokes. That's why Musa was educated from a young age in the idea that laughing is not taking things seriously, along with the good dose of propaganda.



Figure 3.24: Musa, the rival

However, this did not matter to Musa, who was eager to please her father, now a widower with severe depression. She thought that if she rose to the top of the army and became one of Malal's best warriors, her father would stop being depressed and could see her completely cured.

Therefore, Musa followed all the advice that her instructors gave her, working harder than everyone else, even training at night to be the best. This earned her many enemies, as the other girls and boys saw that Musa wanted to take the spotlight away from them, especially the children of high birth who thought that because their parents were rich and powerful, they would also be so in the army. But Musa did not care, she was determined to achieve her goal for her father. She endured constant bullying for her goal and after

years of hard work, she succeeded. She was awarded as the best soldier of her generation and soon joined the army in various battles. But this did not have the effect she was looking for. Her father did not improve even when she told him that she was the best in her class or when she returned from war telling him about all her exploits.

If there was a culprit for Ouali's, Musa's father, worsening condition, it was Musa. The fact that she was not at home made Ouali feel very alone and constantly reminded him of his deceased wife. In addition, the fact that Musa went to war, no matter how good it was, made him even more sad, because there was a possibility that she might die, leaving him completely alone.

Currently, Musa has realized her mistake. That is why this will be her last mission. If she successfully completes this operation, the high-ranking officers of the army will not be able to object when Musa tells them that she wants to leave the army. With this, she can dedicate herself to taking care of her father and helping him overcome his depression. That is why Musa is 100 per cent committed to this mission and will do everything possible not to mess it up.

- **Past of the island:** One of the main themes in "World on the Scales" is history and how it can be twisted and manipulated to propagate certain ideas[19]. That is why the history preceding the events that occur in the game had to be profound, complex, and resonate with the aforementioned themes. It was not enough to create a simple story about a conquering empire; it had to encompass stages, collapses, developments, changes of government, and so on, in order to capture the player's interest as it did with Livia. With that being said, the history of the island remains as it is.

The island has been enormous since the beginning of time. Most, if not all, of the inhabitants have no knowledge of how the island was before the founding of the four main empires, not even the leaders and high-ranking figures of these empires. Initially, there were no humans on the island. Only non-intelligent species inhabited it, which evolved over time to become the current species. Some of these species were able to evolve thanks to the inherent magic present on the island, becoming magical in nature. However, not all species possess magic. At some point in history, humans arrived on the island. Everyone on the island believes that humans have been there since the beginning, but that is not the case. The humans came from a distant land, a land that surrounds the entire island. In other words, the island is located in the middle of a gigantic lake, almost like an ocean from this land. The important point is that these primitive humans disembarked on an extensive and fertile land, which allowed them to reproduce rapidly throughout the island (This contradicts the narratives promoted by the four countries since none of them descend from an ancient lineage of humans native to the island; rather, they all descend from humans who are not indigenous to the island, meaning that no one truly owns the island, and everyone is to some extent invaders.). It should

be noted that these were not humans from a specific area beyond the island but from various regions, explaining the variety of races on the island. These people settled in different areas of the island, all of which were perfect for settlement due to their abundance of resources. The creatures there were initially hostile, but they were able to domesticate some, including some magical ones, although they were unable to tame others, which served as prey. These settlements grew into cities, and from there, rivalries began to emerge. Certain cities began to stand out, gaining influence over other regions, leading to the formation of the first countries. However, these countries were highly unstable. They would collapse and rebuild easily. In fact, no one had absolute control over the island. If two countries were not at war (which was often the case with relatively small countries), they would face internal problems. This is where the great civilization of Val'Mor enters the picture. This country achieved autonomy in the center of the island, a less fertile and more rocky area, which initially made it insignificant compared to the other countries. But then an event occurred. They were able to harness magic. In the center of the island, magical forces were much stronger, so the inhabitants of Val'Mor set out to study these new forces and mastered them astonishingly. It seemed that humans had a certain affinity for magic. Not only did they master magic itself, but they also managed to create magical weapons. These weapons were incredibly powerful, beyond what any other country could have imagined. With their perceived moral superiority, Val'Mor began to conquer. It was a surprise attack from multiple fronts. None of the neighboring countries believed Val'Mor would attack, let alone with such force. Their expansion was rapid. Within months, they had expanded their territory threefold. This was astonishing because most countries could conquer at most one country, not several at once. However, many failed to take this into account and made a wrong decision. They did not join forces to stop Val'Mor's advance, so Val'Mor, with its magical weapons, invaded the entire island. With the domination of the entire island, the Val'Mor Empire was born, lasting for about 500 years. The first thing they did upon coming to power was to establish a strong centralized state. They knew that one of the main reasons no country had lasted long was because their states were not centralized, and power struggles. So all the major spheres agreed to proclaim an emperor, the strongest and with the greatest mastery of magic of all. This position was made hereditary, but over the years there were several dynasties, resulting from palace intrigues or the lack of descendants from some emperors. However, despite everything, the empire consolidated its power. Once this was done, another problem arose. Val'Mor was still a conqueror, and as such, it had to suppress revolts throughout the island, but more importantly, it had to impose its culture on the others. Its initial approaches to exporting its culture were peaceful; it preferred to teach the virtues of its culture rather than using force, for example, by teaching the use of magic. However, some areas refused to submit and adopt Val'Mor's culture, so the empire did not hesitate to use force to forcibly introduce its culture. With this, the empire was established.

The early emperors of the empire dedicated themselves to building cities, promoting arts and sciences, and above all, pacifying the land. But as time passed and new emperors came to power, although the economy remained stable and in good condition, a decline began. Some attempted timid reforms, but achieved little. Eventually, Empress Val'Rea made a significant decision. She divided the empire into four parts, which are now the countries we know. She did this because the island is vast, and it was very difficult to coordinate everything from a central power. Therefore, she decided to divide the empire into four parts, each with its leader in charge of their respective region. These leaders did not have superior power to the central power of the empire, still located in the middle of the island, but they had authority in their respective zones and could promote laws, reforms, culture, etc., as they wished. This was a success. Thanks to this, the different regions flourished along with the center, returning to the initial splendor of the empire. However, this measure would have consequences for the empire's downfall.

One of the problems that arose from this measure was that the created zones gradually gained more power. Sometimes they even challenged the emperor when a measure negatively affected their zone, which often required the imperial army to suppress rebellions. Furthermore, these regional leaders were often more trusted by the inhabitants of the zone than the emperor himself, simply because they responded more promptly. Another issue that added to these problems was that while magic and its weapons were initially very effective due to their scarcity, soon the entire island learned to use them, making the imperial army weaker year by year.

For all these reasons, the last emperors of Val'Mor became tyrannical, futilely attempting to crush the four zones, without success. The final emperor, Val'Tals, did something that no emperor in the entire life of the empire had done before, which led to its downfall. He gathered a large army and decided to conquer the region now known as Tiburnia. This was a great mistake. The four leaders were already aware of the emperor's operation, thanks to spies, so they joined forces to put an end to Val'Tals once and for all. These leaders had grown so powerful that they decided they no longer needed any emperor from Val'Mor. When Val'Tals' intentions became known, this venture ended in a resounding failure. The entire imperial army found itself surrounded by a coalition of the four regions. The emperor narrowly escaped to the capital of the empire. It endured a year-long siege until Bal'Mor, the capital, finally fell. The emperor was captured and brought to the central square, where the four leaders stated that Val'Tals had used his powers to conquer their inhabitants, leading to his death sentence. And so, the great empire of Val'Mor, which had lasted for approximately 1,229 years, came to an end. Naturally, the empire that began was nothing like the one that ended.

Once the last emperor was deposed, the four leaders came together to decide what to do from that point on. One of them argued that the problem of the empire had been its last emperors, suggesting that it would be a good idea to continue

the tradition of Val'Mor but with another dynasty, managed by these four leaders in turn. However, another leader vehemently denied this proposal. The empire would not be recreated; they would have to think of a new form of government, an electoral one in which the four leaders would be equal and autonomous at the same time. Another leader believed that it was best to reunite all the regions in a single empire but with further divisions to prevent the same from happening again. The last leader was very clear and voiced the most dissenting opinion, which became the trigger for what would happen next. He wanted to be the emperor since he believed, due to a series of bloodlines, that he was the heir of the last emperor. All the other leaders would have to bow their heads and pledge allegiance to him, or he would conquer them. This was unacceptable to the other leaders. Soon, discussions began, and inevitably, each of them founded their own country. However, something curious happened. They all, in one way or another, started distorting history to believe themselves as heirs to this empire, providing an excuse to invade their neighboring country.

Thus, the final years of Val'Mor and its abusive policies were omitted. The leaders were made to appear as heirs to this empire, and their neighbors as simple enemies who disturbed the peace in order to achieve their dark purposes. And so, people began to forget everything related to ancient times. No one remembered what happened before Val'Mor, and the knowledge of Val'Mor itself became distorted. Years passed until reaching the present day. All the countries developed separately and were always at war, giving rise to the distinct cultures of each region.

- **Diegesis:** Once the island's history has been explained, we can delve into the diegesis[16]. The island is divided into four countries, each of which is based on different ancient cultures[7]. For instance, Tiburnia, the starting zone, is based on the ancient Roman Empire. With that in mind, we will proceed to explain the different countries and their characteristics:
  - **Tiburnia:** Based on the Roman Empire(see Figure 3.25 and 3.26), Tiburna has elements of the Eastern Roman Empire, closer to the model of a divine emperor (although in our case, the emperor is inviolable but not considered a deity, only deified after death) or the Byzantine Empire. In this country, the introduction will take place as our protagonist resides here. The form of government is a selective court emperorship, meaning that the next emperor is not chosen solely based on being the previous emperor's child; rather, the emperor personally selects their successor. This is based on the governance model of Rome between 200-300 AD, where each Augustus chose their Caesar, who was not always their own offspring. A senate exists in this country with the authority to veto certain actions of the emperors. Additionally, to improve the living conditions of the people, a tribune of the plebs was established, who also had the power to veto imperial laws, typically seeking the betterment of the populace.



Figure 3.25: The inspiration of Tiburnia

This country places great emphasis on art, philosophy, and history. Consequently, they have delved deeper into the mysteries of magic, making them the most powerful nation in terms of magical prowess, although they have not yet mastered it to the extent of the ancient country that once dominated the entire island. They are obsessed with unraveling the secrets of magic and positioning themselves as the rightful successors of Val'Mor. Thus, within the capital of Tiburna, there is a prominent center of studies. This center is divided into three major areas: the arts (sculpture, painting, theater, music, etc.), the sciences (mathematics, physics, chemistry, etc.), and the largest area dedicated to history, even though it is just one subject. Within the center, there is a dedicated section for the study of magic, where ancient texts are deciphered, and magic can be learned.

In terms of topography, the country exhibits a varied landscape, but valleys dominate throughout the nation. However, there are certain mountainous and unexplored regions, perfect for archaeologists to excavate and investigate the ancient culture of Val'Mor.

The presence of several rivers in this area makes agriculture the primary source of wealth and sustenance. Consequently, the inhabitants are not inclined towards pastoralism and have limited consumption of meat, reserving



it for special occasions. Recently, the emperor has imposed restrictions on indiscriminate deforestation due to excessive tree felling for agriculture. As a result, it is rare to see forests adjacent to cities or urban centers. However, once you move away from these areas, encountering entire forests becomes more common. The most important mountain in Tiburna is Mount Palatum. This mountain holds not only geographic significance but also possesses quasi-religious and mythical connotations. According to their history, it was here that the future of the country was decided after the fall of the Val'Mor empire. The mountain serves as a pilgrimage site, but access is only permitted once a year, with climbing prohibited for the rest of the year due to its sacred nature and ongoing archaeological investigations.



Figure 3.26: The inspiration of the army of Tiburnia

Religion in Tiburna is a mixture of ancient gods and deities borrowed from other cultures that once existed in the region, like echoes of a lost memory. The amalgamation of various cults allows religion to coexist with the government without interference. Freedom of worship is permitted, although occasional tensions arise between different religions. However, the people of Tiburna are not particularly religious. They are, however, highly superstitious and strictly adhere to all the obligations of their cults. Nevertheless,

there are individuals who are deeply religious. Occasionally, new religions emerge and gain popularity within certain segments of the population. For example, among mathematicians, there is a tendency to worship Arim, an esoteric and mysterious cult. Members of this cult must make a pact to never disclose what transpires within their rituals. Only those who are part of it know the inner workings, and they assert that nothing untoward occurs, but their religion expressly prohibits sharing this knowledge. Similar cults exist within the country. The worship of the sun, under the name Invictus, is quite popular. Temples dedicated to this cult are widespread, and encountering their priests and priestesses in the streets is not uncommon.

- **Wèilái de guójiā:** In simplified Chinese, it would be (Wèilái de guójiā), which translates to "Country of the Future." This is because it is the most technologically advanced nation among the four states on the island. The country has reached such a level of technological advancement that magic is not necessary for their daily lives. Neighboring countries send spies to gather as much information as possible about these technologies, leading to the secrecy surrounding the guilds and factories where these technologies are developed. Only native citizens are allowed entry into these prestigious guilds, regardless of the time spent in Wèilái de guójiā (see Figure 3.27 and 3.28). To gain admission, individuals must pass rigorous state examinations. The advantage of being part of these guilds is lifetime employment and social status, regardless of one's social class.

Wèilái de guójiā is the largest country in terms of both territory and population among the four nations, making it more powerful than the others. However, this also poses a problem as it requires a stronger defense due to its borders with three of the other countries. The country's form of government is peculiar.

From an outsider's perspective, it may appear that the emperor holds the highest authority, but those within the government know otherwise. The emperor is merely a puppet under the control of all the guilds and factories in the country. All decisions made are solely for their benefit. However, the guilds do not always agree with each other, given their different products. Conquest, for example, may benefit the development of one guild but be detrimental to another. As a result, an atmosphere of betrayal and intrigue often prevails within the guilds. Many individuals end up assassinated to enforce a certain order. Paradoxically, this constant turnover allows new apprentices to enter the guilds. The majority of the population is unaware of this dynamic, and once they become part of the guilds, they must adapt to this way of life. They cannot leave the guilds under the risk of death, as the exposure of the guilds' secrets would be disastrous.

In terms of topography, due to the vast expanse of the territory, there is a great variety of climates and landscapes. For instance, there is a small mountainous desert in the northeast, bordering Malal. This region experiences significant





Figure 3.27: The inspiration of Wèilái de guójiā

cultural exchange influenced by Malal. The inhabitants of this area do not rely as much on technology as in other parts of the country due to their limited resources. Nonetheless, thanks to the influence of Malal, they excel as incredible warriors, blending the traditions of Weilai and Malal to create a unique combat style that is both agile and deadly.

The capital city, Huang, is located in the middle of the country, surrounded by vegetation. Trees in the surrounding area reach towering heights. Despite being technologically advanced, the people of Weilai revere and protect nature. They only take from nature what they need, and with their technology, they can easily replant trees and plants. As a result, few dare to venture into the forests due to the presence of particularly violent magical creatures.

Regarding the capital city, Huang, it is enormous and divided into three circular zones that converge at the center, where the emperor resides in the



Figure 3.28: The inspiration of Wèilái de guójiā



palace. Thus, one could say there are four zones, with the palace serving as the central axis of the city for the Weilainos. The first circle is where the majority of the population resides. This area is home to workers unrelated to technology, such as bakers, florists, butchers, and various other professions. Food is brought in from other parts of the country since agriculture in Huang is limited to avoid disrupting the forest. As a result, the capital itself is not heavily fortified, as it is protected by the forest. However, smaller cities on the outskirts are fortified to a greater extent, as an invasion of those cities would pose significant difficulties in terms of food supply to the capital.

The next zone is the commercial area. Here, the standard of living is considerably higher, and one can find wealthy merchants selling all kinds of mechanical contraptions, clothing, weapons, jewelry, toy collections, and more.

Finally, there is the circle of guilds. Although smaller than the other two circles, it is still sufficiently large to accommodate the construction of anything. For example, bamboo and magical wood-based aircraft can be found in the most powerful guilds.

Apart from the capital, there is a wide variety of cities. Many of these cities serve as granaries for the kingdom, primarily focusing on providing food for the entire country. Their significance lies in their agricultural work. Coastal cities have attempted to imitate the guild system of the capital, albeit on a smaller scale and with lower quality. They are particularly focused on naval activities to improve fishing and explore beyond the inland waters.

- **Malal:** Based on the Mali Empire (see Figure 3.29 and 3.30), this is a country of contrasts. On one hand, there are large and bustling cities, especially those closer to the coast. Trade and fishing dominate these cities, which often exist in a sort of bubble, detached from the rest of the country, limiting their perspective to their immediate surroundings. On the other hand, in the center of the country, there stretches an arid desert where small villages exist in oases. These villages barely subsist thanks to the coveted oases.

The country's form of government is an elective monarchy. There is an assembly of all the tribes in the country that decides who will be the new king of the nation. It is worth mentioning that anyone can present themselves as a candidate, including wealthy merchants, nobles with ancient lineage, and ordinary citizens. Naturally, only the most popular candidate wins, but that does not mean that someone with less power or wealth cannot succeed. Despite this system, there have always been kings who have attempted to establish a hereditary and absolutist rule. However, thanks to popular pressure and defense, this has never been achieved.

A characteristic of the majority of Malal's governments is their strong military influence. All rulers are deeply militaristic, believing that invasion is the best way to overcome other countries. Consequently, all inhabitants are forcibly enrolled in a military training course at the age of 20, regardless of their race, gender, or social status. It is normal for these citizens to have basic knowledge



Figure 3.29: The inspiration of Malal

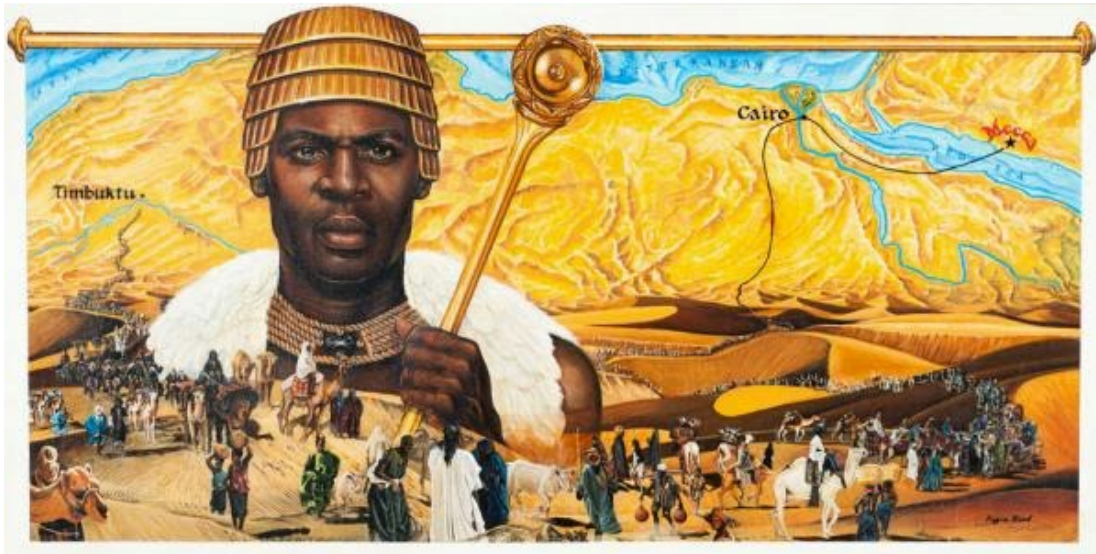


Figure 3.30: The inspiration of the Malal

- of self-defense, martial arts, or weapon use. This does not mean that they lack arts or sciences; it simply indicates that military prowess is emphasized. In fact, there have always been artists advocating for greater representation of the arts, and protests and subsequent revolts have played a significant role in achieving this representation. They reached an agreement with the king to ensure greater visibility or, at the very least, to diminish the overshadowing of the military.
- **Gamdha:** Based on the Gupta Empire of India (see Figure 3.31 and 3.32), the main characteristic of this nation is its profound spirituality. Unlike other countries, it adheres to a single religion, Gautabu. This religion was founded during a tumultuous period. After numerous internal power struggles between different heirs and generals to the throne, a mythical figure emerged within this religion known as Gauta (from which Gautabu derives its name; "Bu" meaning religion, literally the religion of Gauta). The origins of this Gauta are uncertain. Some claim descent from the first kings of Gamdha, while others suggest Gauta was the son of a poor family. However, the most widely accepted theory, serving as a justification for conquest, is that Gauta hailed from the ancient lineage of the kings of Val'Mor. Regardless of his true origins, this enigmatic figure managed to rally the support of the people and became the leader of the region. Upon ascending to power, he proclaimed himself an envoy of God, sent to preach His word. This religion quickly spread throughout the country, supplanting indigenous religions. Following Gauta's death, he became syncretized with the deity who was believed to have carried his message (in fact, Gauta is so revered that no one knows the

name of this god, and some simply believe Gauta himself was a living god). Thus, Gauta became a God, giving rise to the position of high priest.



Figure 3.31: The inspiration of Gamdha

In Gamdha, there are no kings. Instead, it is the high priest of Gautabu who dictates the laws and determines the nation's future. Such is their power that they are virtually inviolable, and commoners have no right to speak unless instructed to do so. To become the high priest, one must pass Gauta's trials, which were likely established after his time to determine who among the high gurus is worthy of this position. This religion is hierarchical, with the high priest at the top. Below them are the gurus, who hold senior positions within the religion. They have climbed the ranks based on their supposed acts of faith, with those who have performed the most significant miracles throughout their lives being the most revered (miracles are believed to be magic, although discussing this topic is taboo in Gamdha). Anyone can become an apprentice and train to become a priest in one of the country's many churches, but there is a maximum quota for these positions. From there, one can ascend the ranks until reaching the status of high priest, which is a highly challenging endeavor. In fact, the intermediate ranks require the ability to perform miracles.

This region is rich in metals, which are used in their churches and even clothing. It is also common to see all forms of art, such as music and painting, revolving around the religion. Contrary to what one might expect, science does not clash with religion here, and significant advancements have been made thanks to its influence.

Perhaps two of the most troubling aspects in this society are religious perse-





Figure 3.32: The inspiration of Gamdha

cution, which has led to executions during different periods in history. Currently, religious freedom is still not permitted, although executions are no longer carried out. Instead, individuals are forced to adhere to the dominant religion, or they are expelled from the country. Another negative aspect is the inability to conduct investigations into Gauta, his past, or anything related to him. Consequently, there is little interest in history within this region.





## WORK DEVELOPMENT AND RESULTS

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Every one could have an idea but develop that idea is the key factor when a project is done. With that being said, this chapter will discuss the progress of the project, along with its various issues and how they were resolved.

### 4.1 Work Development

In this chapter, we will discuss the progression of the project chronologically and how each step was taken. Therefore, the very first thing that was done was conceptualizing the project. This may seem trivial, but it laid the foundation for everything that followed, making it crucial to have a solid and well-established concept. This concept emerged in the early stages of the project with the sole intention of creating a game where narrative played a significant role. However, it was merely a vague idea at that point. In fact, the initial story envisioned was quite different from the final one. Initially, there were plans for three factions representing light, darkness, and neutrality. However, this idea was discarded over time and replaced by the one presented in this project. Some changes were also made for the Bachelor’s Thesis. For instance, there were originally supposed to be five countries, with the last one inspired by Russia under the czars. However, this idea was discarded to avoid overwhelming the player with excessive information. Additionally, with four countries, each associated with one of the basic elements (Fire for Tiburnia, Air for Weilai, Earth for Malal, and Water for Gamdha),

the design felt more balanced. With the concept developed, the next step, during the active development of the Bachelor's Thesis, was to create the script. Since this project aimed to be narrative-driven, it was essential to have a script that also included sections for characters, diegesis, and other aspects. This ensured that the writing process would not be chaotic and provided a clear understanding of the characters and past events[10]. Taking this into account, it was decided how many characters would be in the work, as well as their backgrounds, interactions with other characters, personalities, main characteristics, physical appearance, and so on. Additionally, the lore surrounding the countries and their shared history was developed. With this written material, the pacing of the story and the development of important events were planned. At this point, although there was a general idea of what the story would be, the details were not yet fully determined. In writing, rarely are all the details known from the beginning. In my opinion, it is better to have a general idea and then start writing the details, followed by reading the final story and making necessary changes. With this approach in mind, chapter by chapter was written. Some of these chapters posed challenges in terms of maintaining thematic coherence and realism. One of the major problems encountered was the introduction of Musa and her subsequent escape with Livia. It was difficult to create a natural encounter between these two characters and make it believable that Livia would discover Musa's identity as a spy, followed by their encounter after Musa's capture and their escape from Tiburnia to Malal. Various plotlines were attempted, such as having Musa involved in an excavation and causing chaos, but it was discarded as it lacked coherence. Later, Livia would somehow recognize Musa simply by seeing her, until finally a solution was found that was also vital to Musa's character: her diadem, an ancient jewel from Malal that her mother had given her, and Livia recognized it from her readings about Malal. It was also decided that Livia would not be the one rescuing Musa; instead, Livia would be imprisoned, and Severo would take on the role of rescuer for both of them. And this is just one example. Others, such as the role of Caracalla, the introduction of Joviano as a villain, and how Augusto would betray Livia, among many other examples, were also addressed. These issues were resolved as the writing progressed, and even more lore was added, and some elements were changed to enhance the overall plausibility.

Once the entire script and dialogue were written, as well as the pacing of the game determined, it was time to start programming. It should be noted that an artist, @Seihart, was previously hired to create the drawings of the main characters. This facilitated the process. From the beginning, it was decided that the game would be a JRPG (Japanese Role-Playing Game), so RPG Maker MV was chosen as the game engine. Although this engine is not very flexible when it comes to creating something other than a JRPG, it was the best option since the game was intended to be a JRPG anyway. This provided a solid foundation while allowing for some programming for specific functions, which will be explained later. Additionally, various assets such as sprites, artwork, music, etc., were obtained, making level creation much easier. Many of the sprites and music were sourced from [OpenGameArt.org](https://opengameart.org/), a free website for pixel art and copyright-free music (in fact, all the music used is copyright-free). Speaking of music, the artist @pitarcusmp

was commissioned to create an original song for the game called "Let's Learn," which plays during university scenes. Once the game engine was chosen, level creation began. It started with an introduction and then moved on to the university level (see Figure 4.1). The university is a large map where it's easy to get lost between classes. There are three hallways, each with six different classrooms, each of which contains secrets, interactions, lore information, and much more. Each hallway also has a large room, such as the library or auditorium. Two gardens are located between the three hallways for relaxation. Lastly, there is a huge corridor where the professors' offices and the protagonist Livia's office are located (see Figure 4.2). From these corridors, players can access the aforementioned areas[13]. As mentioned, the university is a large area with many things to do and see. This design choice was made because players would spend a lot of time in the university, so it needed to be big enough to keep players engaged and avoid boredom.



Figure 4.1: The university of history

The next area was the city of Tiburnia, which served as a significant location for key plot points, even though they were not yet revealed. This area is even larger than the university, featuring various maps and houses where players can easily get lost. Additionally, there are several shops and a resting place available. Anticipating future development, initially there was no house for Livia, but due to its necessity much later in the game, it had to be added towards the end of the development process, along with an event to indicate to the player that it was indeed Livia's house.

Furthermore, this area constitutes the main city of the empire[22], and as such, it needed to be expansive. Once players reached this point, they would venture out into



Figure 4.2: The office of Livia

the world map. Therefore, careful thought had to be given to the design of the world map, as there was no initial idea of what it should be like. A preliminary sketch was created, which ended up resembling the final map closely (see Figure 4.3). In fact, much later, a map of the entire island of Aer was designed to be included in the game as a map item (see Figure 3.17).

Along with the world map came another challenge: creating the maps for cities and towns. However, they couldn't all be the same, as that would discourage players from wanting to visit different areas due to the potential monotony. Each of the distinct towns and cities in Tiburnia had a unique characteristic that made them interesting to the player. For example, the town of Tacio featured distinct vineyards that could only be found there. Thus, the complete map would be populated with various points of interest, allowing players to explore the entire Tiburnia region at their leisure.

To continue with the main story, two types of areas had to be created, consisting of three distinct zones in total. These two types are dungeons and exploration zones. Dungeons, as the name implies, are areas where more monsters appear, and their design is labyrinthine to confuse the player. These zones correspond to the challenges that players must overcome to progress in the story. In fact, each of the three dungeons in the game will have a different boss awaiting at the end.

The other type of zone, linked to the dungeons, is the exploration zone, which provides a more leisurely segment where players can investigate the area to uncover various story explanations. Certain events within these zones will advance the story. However, there was a problem with the dungeons in that they tended to become repetitive. Par-

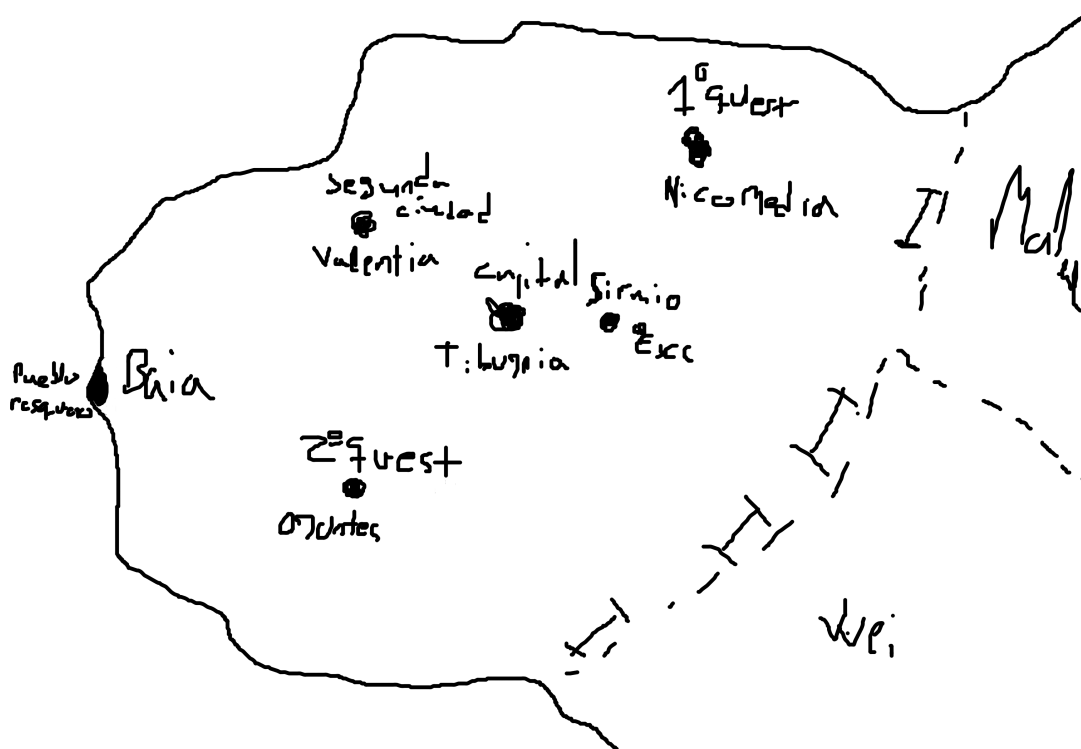


Figure 4.3: The sketch of Tiburnia

ticularly in the exploration part, where clues were often given in the same way, through text. To address this issue, experimentation was conducted with alternative methods such as objects, paintings, etc., to make the exploration experience less monotonous.

With all the maps and necessary zones completed, there were still many tasks to be done. For example, in all RPGs, enemies are required. The enemy art was a combination of RPG Maker MV assets and assets sourced from other websites. When creating the enemies, their attributes, rewards, descriptions, and most importantly, their abilities had to be defined. This leads us to another task: creating abilities.

Abilities are crucial as they differentiate both the player characters and the enemies. For the enemies, offensive and supportive abilities were created to enhance certain enemies and create synergies among them. Additionally, many of the abilities are associated with elements that are much more effective against certain enemies. This expanded the combinations of enemies and made them more powerful.

However, it was important to balance the enemies so that they didn't pose an overwhelming challenge for the player, but also weren't too easy to defeat. To achieve this, battles were tested extensively to ensure that the challenge was appropriate, and to ensure that both the experience gained and the monetary rewards were balanced as well.

Although RPG Maker MV is a useful engine overall, it does have certain limitations in some functions that are basic in other RPGs. For example, it lacks the Libra ability, which is a key ability in many JRPGs, as well as the Steal ability and various others. However, this is not a major concern as RPG Maker allows for custom programming of these abilities. The engine utilizes JavaScript as its programming language, and the following examples will demonstrate the programming done for the game.

Let's start with the Steal ability (see Figure 4.4, 4.5 and 4.6 ). This ability[15] was not intended for the player characters, such as Livia or Augusto, but rather for enemies who could utilize it. To implement this, it was necessary to specify the IDs of the characters, make the stealing action random, and then check the enemy's inventory to select an item randomly. A steal rate was also included, allowing for the possibility of failure during execution. Additionally, a condition was set to ensure that the ability could only be used during combat[5] and not outside of it to avoid any complications.

In addition, an extra effort was made by taking on the role of a Community Manager for a Twitter account to promote the game. This involved providing previews, demos for people to play, promotional videos, and even memes to generate a stronger connection with the audience (see Figure 4.7). Through these efforts, a moderate level of success was achieved for such a small project, thanks to the dissemination by other individuals.

## 4.2 Results

One of the expected outcomes of this project was to create a narrative that is not only good but also engaging and profound. This has been achieved through the previously described elements in the preceding chapters. The world created is vast and intriguing. Despite being a relatively small project, all the characters have undergone character development, which is a challenge even for professional writers. Additionally, the story itself maintains a good pacing.

In addition to that, the goal was not only to provide a good narrative but also to create a JRPG, which was successfully accomplished. While the narrative aspect took up a significant portion of the project, the game design was never neglected. A wide variety of distinct enemies were created, along with a diverse range of abilities for both enemies and allies. Weapons and armor were also designed to go beyond stat boosts, providing meaningful gameplay impact and offering players decisions to make regarding their equipment choices.

You can access the repository with the script of the game with this link:

<https://github.com/DastdjC/world-on-the-scales>

Also you can play the full game in the link below:

<https://dastdj.itch.io/world-on-the-scales>

```

(function() {
  var parameters = PluginManager.parameters('MrTS_StealSkill');
  var stealMode = Number(parameters['Steal Mode'] || 1);
  var stealSuccessText = String(parameters['Steal Success Text'] || "%1 stole %2 from %3!");
  var stealSkillSuccessText = String(parameters['Skill Success Text'] || "%1 stole skill %2 from %3!");
  var stealFailText = String(parameters['Steal Fail Text'] || "%1 failed to steal from %2.");
  var nothingLeftText = String(parameters['Nothing Left Text'] || "%1 doesn't have anything left!");

  var _Game_Energy_setup = Game_Energy.prototype.setup;

  Game_Energy.prototype.setup = function(enemyId, x, y) {
    _Game_Energy_setup.call(this, enemyId, x, y);
    this.stealableItems = [];
    if (this.enemy().meta.steal)
    {
      var note = this.enemy().note.split(/\r\n+/);

      for (var i = 0; i < note.length; i++)
      {
        var regex = /<steal:[ ]*([wais])+,[ ]*(\d+),[ ]*(\d+[.]*\d*),[ ]*(\d+)[, ]*(\d+)>/i;
        var match = regex.exec(note[i]);
        if (!match) continue;
        this.stealableItems.push(match);
      }
    }
  };

  _Game_ActionResult_clear = Game_ActionResult.prototype.clear;
  Game_ActionResult.prototype.clear = function() {
    _Game_ActionResult_clear.call(this);
    this.stolenItems = [];
    this.stolenSkills = [];
    this.noItemsToSteal = true;
    this.failedSteal = false;
    this.stealAttempt = false;
  };

  _Game_Action_apply = Game_Action.prototype.apply;
  Game_Action.prototype.apply = function(target) {
    _Game_Action_apply.call(this, target);
    var result = target.result();
    if (result.isHit() && this.item().meta.steal) {
      var stolenItems = this.stealSuccess(target, this.subject());
      result.stealAttempt = true;
      if (stolenItems.length > 0)
      {
        result.stolenItems = stolenItems;
      }
      else
      {
        result.failedSteal = true;
      }
      this.makeSuccess(target);
    }
  };
};

```

Figure 4.4: Part of the code for Steal

```

Game_Action.prototype.stealSuccess = function(target, subject){
    var success = [];
    var modeRand = 0;
    var modeRandSum = 0;

    if (stealMode == 2) modeRand = Math.random();

    if (target.stealableItems.length > 0)
    {
        for (var i = 0; i < target.stealableItems.length; i++)
        {
            if (stealMode == 2 && success.length > 0) break;

            var stealData = target.stealableItems[i];
            var stealSucceeded = false;

            if (stealMode == 1)
            {
                if (Math.random() <= Number(stealData[3]) && Number(stealData[5]) > 0)
                {
                    stealSucceeded = true;
                }
            }
            else if (stealMode == 2)
            {
                modeRandSum += Number(stealData[3]);
                if (modeRand <= modeRandSum)
                {
                    if (Number(stealData[5]) > 0)
                    {
                        stealSucceeded = true;
                    }
                    else
                    {
                        break;
                    }
                }
            }
        }

        if (stealSucceeded)
        {
            target.stealableItems[i][5] = Number(target.stealableItems[i][5])-1;

            switch(stealData[1].toLowerCase()){
                case "a":
                    var item = $dataArmors[Number(stealData[2])];
                    $gameParty.gainItem(item, Number(stealData[4]));
                    success.push(item);
                    break;
                case "w":
                    var item = $dataWeapons[Number(stealData[2])];
                    $gameParty.gainItem(item, Number(stealData[4]));
                    success.push(item);
                    break;
                case "i":
                    var item = $dataItems[Number(stealData[2])];
                    $gameParty.gainItem(item, Number(stealData[4]));
                    success.push(item);
                    break;
                case "s":
                    var skill = $dataSkills[Number(stealData[2])];
                    subject.learnSkill(skill.id);
                    success.push(skill);
                    break;
            }
        }
    }
}

```

Figure 4.5: Part of the code for Steal



```
        var skill = $dataSkills[Number(stealData[2])];
        subject.learnSkill(skill.id);
        success.push(skill);
        break;
    } // switch
} // if
} // for

for (var i = 0; i < target.stealableItems.length; i++)
{
    if (Number(target.stealableItems[i][5]) > 0) target.result().noItemsToSteal = false;
}
} // if

return success;
};

_Window_BattleLog_displayActionResults = Window_BattleLog.prototype.displayActionResults;
Window_BattleLog.prototype.displayActionResults = function(subject, target) {
    _Window_BattleLog_displayActionResults.call(this, subject, target);
    if (target.result().used) {
        if (target.result().stolenItems.length > 0)
        {
            var stolenItems = target.result().stolenItems;
            for (var i = 0; i < stolenItems.length; i++)
            {
                if (!DataManager.isSkill(stolenItems[i]))
                    this.push('addText', stealSuccessText.format(subject.name(), stolenItems[i].name, target.name()));
                else
                    this.push('addText', stealSkillSuccessText.format(subject.name(), stolenItems[i].name, target.name()));
            }
        }
        if (target.result().noItemsToSteal && target.result().stealAttempt)
            this.push('addText', nothingLeftText.format(target.name()));
        else if (target.result().failedSteal)
            this.push('addText', stealFailText.format(subject.name(), target.name()));
    }
};
})();
```

Figure 4.6: Part of the code for Steal

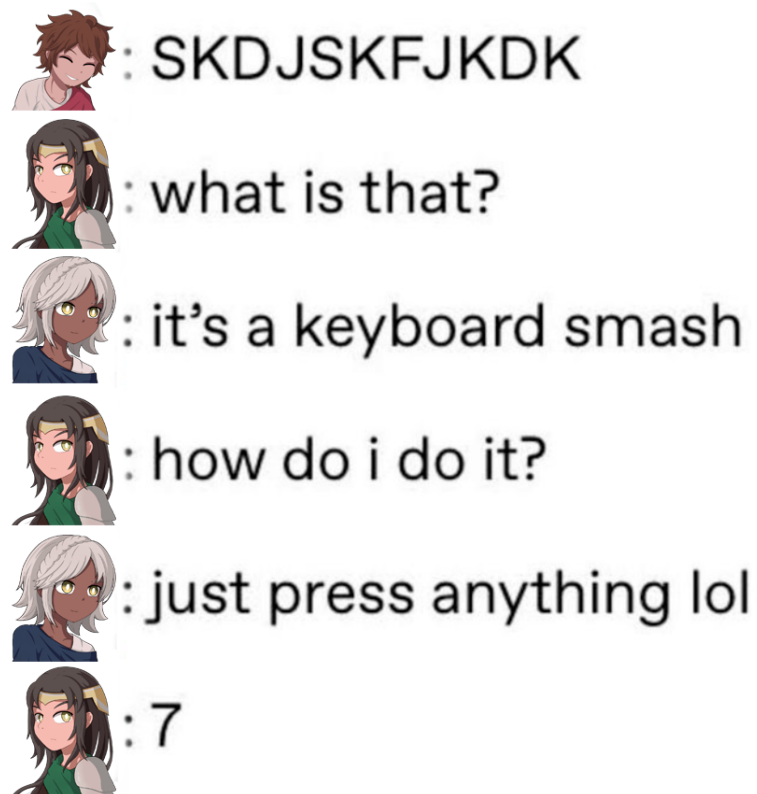


Figure 4.7: A example of the image spread in Twitter

## CONCLUSIONS AND FUTURE WORK

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In this chapter, the conclusions of the work, as well as its future extensions are shown.

### 5.1 Conclusions

This work has been highly challenging yet incredibly enriching. It was the first time I undertook such a complex narrative project, and in my opinion, it has turned out very well. While it wasn't my first solo project, as I had previously created some games on my own, it was certainly the first large-scale endeavor of its kind, which presented its own set of challenges.

Even with the challenges that arose during development, they were successfully resolved, as mentioned in the previous chapters. This was achieved through perseverance, hard work, and the application of the concepts learned throughout my game development career. In conclusion, this project has shown me what I am capable of and how well I can perform in a field that I am passionate about, such as narrative and video games. The time dedicated to this endeavor has been entirely worthwhile, especially when considering the final result and how well it has turned out.

## 5.2 Future work

The game itself covers the first part of about three more chapters. These chapters will be released gradually until the final game is complete. In the upcoming chapters, other countries will be introduced, along with additional characters. The mission of Livia will be further explored, delving into the significance of her knowing the truth that others seem to want to ignore. She will travel to other countries to gather the remaining information and uncover the complete story, or at least a significant part of it. Musa, as Livia's romantic interest, will have a more prominent role. Additionally, there will be an attempt to port the work to Unity for a better visual experience and to gain more experience in using the engine.

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