



THE VIRTUE OF A SOLDIER  
IS IN THE SHINE OF ITS HEART

# Normanda Production Plan

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# 1. Game Introduction

## 1.1 Theme

Action and Adventure, being a Dungeon Crawler.

## 1.2 Setting

The game takes place in a town named Normanda, a fictional city. There are 3 neighborhoods in the city, each neighbor has a portal to the other world that will work as a dungeon level to the player. If the Final Enemy of the dungeon is defeated, the portal for the human world appears.

## 1.3 Art/Camera Style

Top-down view with a pixel art style.

## 1.4 Music Style

### 1.4.1 City Music Style

24 bits Calm violin music, creating a happy and calm atmosphere.

### 1.4.2 Dungeon Music Style

24 bits Bass Piano music, increasing the feeling of tension.

## 1.5 Sound Effect

24 bits sound effect.

## 1.6 Platforms

Windows computers and Android smartphones.

## 2. Project Concept

### 2.1 Game Concept

The game is a dungeon crawler with exploration. You play as “Adventurer”, your goal is to clean the dungeons and save the city before the monsters discover a way through the portal, while cleaning them, the player can talk with NPCs in the city to understand the world that he is in. When the player kills a monster, he gains gold, being able to buy new items and become stronger. The rarity of the item influences the price of it. The exploration is in the city map, where NPCs will work as comedy relief and stores to purchase items.

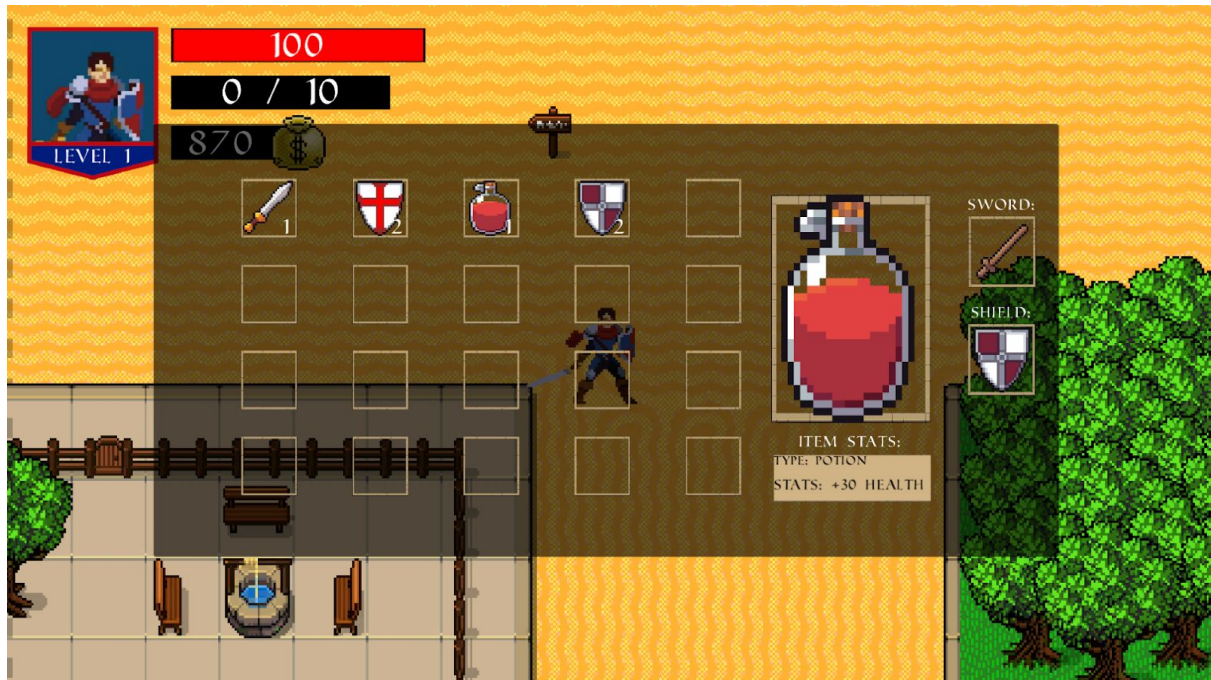
### 2.2 Companion App Concept

The Companion app is an extension of the Windows version of the game. The companion app has the features of “Stats”, “Maps”, “Wiki”, and “Challenge”.

- Stats - Show in real time the Life, Gold, Experience, and Level of the player.
- Maps - Work as a treasure hunt. In the game the player can find maps that will be only visible in the Companion app. The treasures will be in the form of specific items that will be randomized.
- Wiki - Wiki will show all the items of the game, with its photo, name, price, lore, and stats.
- Challenge - A timer that the player can set (In minutes), that creates a challenge in the game. If the player kills the specific number of enemies that appears in the app, he gets extra Experience, and Gold.

### 3. Game Features List

#### 3.1 Inventory Popup



The player items will be shown in a form of a grid, the items will appear by the order that the player gets it. The storage of items in the inventory doesn't have a limit.

#### 3.2 Item Store Popup





Items can be bought inside the store, the player must select the item that he wants, and press click on it, if the amount of gold is enough, the item will appear in the inventory.

## 4. Game Backlogs

ID	Task	Time Needed	Responsable	Tested?	Priority	Stage
1	Documentation	X Hour	Both	N/A	High	Not Started
2	Camera	X Hour	Gabriel	N/A	High	Not Started
2	Basic UI	X Hour	Gabriel	N/A	High	Not Started
2	Player Movement	X Hour	Gabriel	N/A	High	Not Started
3	Player Animation	X Hour	Gabriel	N/A	Low	Not Started
3	Player Basic Attack	X Hour	N/A	N/A	High	Not Started
3	Player Strong Attack	X Hour	N/A	N/A	High	Not Started
3	Player Shield	X Hour	N/A	N/A	High	Not Started
3	Static UI	X Hour	N/A	N/A	High	Not Started
4	Dynamic UI	X Hour	N/A	N/A	Low	Not Started
4	Melee Attack Enemy	X Hour	N/A	N/A	High	Not Started
4	Archer Attack Enemy	X Hour	N/A	N/A	High	Not Started
4	NPC's ChatBox	X Hour	N/A	N/A	Low	Not Started
5	Item Constructor	X Hour	N/A	N/A	Medium	Not Started
5	Level Design	X Hour	N/A	N/A	Medium	Not Started
5	Level Collision & Tales	X Hour	N/A	N/A	Medium	Not Started
6	Enemy Formulas <sup>1</sup>	X Hour	N/A	N/A	High	Not Started
7	Music Implementation	X Hour	N/A	N/A	Low	Not Started
7	Sound Effect Implementation	X Hour	N/A	N/A	Low	Not Started
7	Login Verification	X Hour	N/A	N/A	High	Not Started

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<sup>1</sup> Formula for Damage, Health, Attack Speed, and Gold

ID	Limit Date
1	2020/11/13
2	2020/11/20
3	2020/11/27
4	2020/12/04
5	2020/12/11
6	2020/12/18
7	2020/12/25

## 5. Companion App Backlogs

ID	Task	Time Needed	Responsable	Tested?	Priority	Stage
1	Blueprints	X Hour	Gabriel	N/A	High	Not Started
2	UI Shown In App	X Hour	Gabriel	N/A	High	Not Started
2	Connection Between Pages	X Hour	Gabriel	N/A	High	Not Started
2	Linear Grid & Buttons	X Hour	Gabriel	N/A	High	Not Started
3	Item Creation	X Hour	Nuno	N/A	High	Not Started
3	Draw of the Item	X Hour	Nuno	N/A	High	Not Started
3	Wiki	X Hour	Gabriel	N/A	High	Not Started
4	Map Implementation	X Hour	Nuno	N/A	High	Not Started
5	Stats	X Hour	Gabriel	N/A	High	Not Started
6	Training System	X Hour	Gabriel	N/A	High	Not Started
7	Login Verification	X Hour	Nuno	N/A	High	Not Started

ID	Limit Date
1	2020/11/13
2	2020/11/20
3	2020/11/27
4	2020/12/04
5	2020/12/11
6	2020/12/18
7	2020/12/25

## 6. Server Backlogs

ID	Task	Time Needed	Responsable	Tested?	Priority	Stage
1	Database Sketch	X Hour	Gabriel	N/A	High	Not Started
4	Database	X Hour	Gabriel	N/A	High	Not Started
7	Login Verification	X Hour	Nuno	N/A	High	Not Started
8	Exchange of Info	X Hour	Gabriel	N/A	High	Not Started

ID	Limit Date
1	2020/11/13
2	2020/11/20
3	2020/11/27
4	2020/12/04
5	2020/12/11
6	2020/12/18
7	2020/12/25
8	2020/01/05

## 7. First Sprint

### 7.1 Review And Retrospective

The group worked in the presentation week to have as already some functionalities in the game, as simple as they could.

#### 7.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Camera	0.5 Hour	Gabriel	Yes	High	Completed
Player Movement	0.5 hour	Gabriel	Yes	High	Completed
Player Animation	2.5 Hours	Gabriel	Yes	Low	Completed

#### 7.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Blueprints	3.5 Hour	Gabriel	Yes	High	Completed

- All the Backlogs were developed by Gabriel, during this week Gabriel rushed to have as most as possible to show to the professors.

## 7.2 Plans For The Nexts Sprints

#### 7.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Player Basic Attack	X Hour	Gabriel	Yes	High	Not Started
Player Strong Attack	X Hour	Gabriel	Yes	High	Not Started
Player Shield	X Hour	Gabriel	Yes	High	Not Started

#### 7.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
App Pages/Connected	X Hour	Gabriel	Yes	High	Not Started

## 7.3 Objectives

In-game character is moving and the camera is working properly for the type of game.

## 7.4 Backlogs

The Task in both game and the app backlogs were done as envisioned them.

## 7.5 Sprints

The Tasks were completely done by their responsible.

## 7.6 Analysis

In this sprint, most of the work was done by brainstorming and having discussions with the teachers about the mechanics. The Database was sketched to simplify future work and the game already has movement and some animations.

## 7.7 Tasks Review

All tasks were completed without any delay or change on the backlogs.

## 8. Second Sprint

### 8.1 Review And Retrospective

During the first sprint the group focused on the documentation, and to start the code with basic code. Trying to implement the simpler codes for the game.

#### 8.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Player Basic Attack	1 Hour	Gabriel	Yes	High	Completed
Player Strong Attack	1 Hour	Gabriel	Yes	High	Completed
Player Shield	0.16 Hour	Gabriel	Yes	High	Completed
Static UI	0.5 Hour	Gabriel	Yes	Medium	Completed
Player Animation	2.5 Hours	Gabriel	Yes	Low	Completed

#### 8.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
App Pages/Connected	2 Hours	Gabriel	Yes	High	Not

- All the Backlogs were developed by Gabriel. The Connections between pages was left behind to learn and work with bottom bar navigation.

## 8.2 Plans For The Nexts Sprints

### 8.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
NPC's ChatBox	X Hour	Nuno	No	High	Not Started
Soldier Enemy	X Hour	Gabriel	No	High	Not Started
Arch Enemy	X Hour	Gabriel	No	High	Not Started

### 8.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Item Creation Kotlin	X Hour	Nuno	No	High	Not Started
Map Implementation	X Hour	Gabriel	No	High	Not Started

### 8.3 Objectives

All the combat mechanics of the player were developed, having attacks and shield working perfectly.

### 8.4 Backlogs

The Task in both game and the app backlogs were done as envisioned them.

### 8.5 Sprints

The Tasks were completely done by their responsible.

### 8.6 Analysis

In this sprint, all the work was done by Gabriel. The group is expecting Nuno to take the initiative to work.

### 8.7 Tasks Review

All tasks of the game were accomplished without delays. The companion app had a delay of a few hours, this delay didn't affect the overall productivity of the group.

In the table, it's not include the time to study and develop the logic. Just the time used to create the code and fix errors.



## 9. Third Sprint

### 9.1 Review And Retrospective

During the third sprint the group focused on the creation of the enemies and their behaviors.

#### 9.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Arch Enemy	3 Hours	Gabriel	Yes	High	Completed
Soldier Enemy	1 Hour	Gabriel	Yes	High	Completed
Final Boss	2 Hours	Gabriel	Yes	High	Completed
NPC's ChatBox	9 Hours	Nuno	No	Low	Not Finished

#### 9.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Splash Screen	0.5 Hour	Gabriel	Yes	High	Completed
Linear Grid & Buttons	1 Hour	Gabriel	Yes	High	Completed
Page Adaptor	2 Hours	Gabriel	Yes	High	Completed

- All the effective work was done by Gabriel, Nuno spent his time working in the development of talk boxes, where the NPC will dispose of its sentence.
- In the Companion App, following Bruno's class, everything is going slow but effective.

## 9.2 Plans For The Nexts Sprints

### 9.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Transition in levels	1 Hour	Gabriel	Yes	High	Completed
Menus	3 Hour	Gabriel	Yes	Low	Completed

### 9.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Item Creation Kotlin	X Hour	Nuno	No	High	Not Started
Map Implementation	X Hour	Gabriel	No	High	Not Started

## 9.3 Objectives

In-game player attacks, and defense were developed, creating for a few seconds an area of collision that works according to their objectives and after some time destroys them.

## 9.4 Backlogs

The Task in both game and the app backlogs were done as envisioned them.

## 9.5 Sprints

The Tasks were completely done by their responsible.

## 9.6 Analysis

In this sprint, most of the work done was accomplished in 3 days. Having a small period of time, but being able to finish all the work with different tests and optimization.

## 9.7 Tasks Review

All tasks of the game were accomplished without delays. The companion app had a delay of a few hours, this delay didn't affect the overall productivity of the group.

In the table, it's not include the time to study and develop the logic. Just the time used to create the code and fix errors.

## 10. Fourth Sprint

### 10.1 Review And Retrospective

During the Fourth sprint, the team focused on the Menus and Interactions with NPC's, Transitions, and Menus.

#### 10.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Inventory	25 Hours	Nuno	Yes	High	Incomple
Transition in levels	1 Hour	Gabriel	Yes	High	Completed
Menus	3 Hour	Gabriel	Yes	Low	Completed
NPC's ChatBox	2 Hours	Gabriel	Yes	High	Completed

#### 10.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Wiki	X Hour	Gabriel	Yes	High	NOT

- Nuno had a lot of problems with the creation of the NPC's ChatBox. After a week of work, Gabriel took the responsibility and Nuno started working with Inventory as he wanted to do it.
- Gabriel started working in the Wiki, but Bruno asked him to stop and wait for the class he would teach what is needed to do it.
- It came to my knowledge, from other students, that nuno wants to leave college.

## 10.2 Plans For The Nexts Sprints

### 10.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
NPC's Waypoints	X Hour	Gabriel	No	High	Not Started
Item Store	X Hour	Gabriel	No	High	Not Started

### 10.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
?	?	?	?	?	?

## 10.3 Objectives

Menus and the communication between player and npc was developed, being able to have sentences, related with the lore or not.

## 10.4 Backlogs

The Task in both game and the app backlogs weren't done as envisioned them. Inventory had a delay of a week, Nuno asked for more time.

## 10.5 Sprints

The majority of the tasks were completely done by their responsible, with the exception of the inventory that will be delayed and finished by it's responsible.

## 10.6 Analysis

In this sprint, most of the work was accomplished in 4 days. Having problems with the development of the Inventory, Nuno, the responsible asked for more time to finish it.

## 10.7 Tasks Review

All tasks of the game were accomplished with delays in the Inventory. The companion app had a delay as the group has an absurd difficulty with kotlin and android Studio.

In the table, it's not include the time to study and develop the logic. Just the time used to create the code and fix errors.

# 11. Fifth Sprint

## 11.1 Review And Retrospective

During the fifth sprint, the team focused on the behavior of the NPC's and the level design to illustrate better what the team desires with the game.

### 11.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
NPC's Waypoints	3 Hours	Gabriel	Yes	High	Completed
Meeting With the Artist about the NPC's art	2.5 Hours	Gabriel	N/A	High	Completed
Player Level System	1 Hour	Gabriel	Yes	High	Completed
Inventory	20 Hours	Nuno	No	High	Incomplete
Neighborhood 1	2 Hours	Gabriel	Yes	Low	Completed
Dungeon 1	1 Hour	Gabriel	Yes	Low	Completed

### 11.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Stats	1 Hour	Gabriel	Yes	High	Completed

- In the game and in the Companion App, all the tasks were completed with the exception of the Inventory. Nuno asked for one more week to do it.
- During this week, Nuno realized he had made only 0.4% of the project and started talking about leaving college.

## 11.2 Plans For The Nexts Sprints

### 11.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Item Store	X Hour	Gabriel	No	High	Not Started
Slime King	X Hour	Gabriel	No	High	Not Started
Enemies Animation	X Hours	Gabriel	No	High	Not Started

### 11.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
?	?	?	?	?	?

### 11.3 Objectives

During the fifth sprint, the team focused on the creation of a full playable game level with enemies and their animations. Gabriel had a meeting with an artist that will help in creating art.

### 11.4 Backlogs

The Task in both game and the app backlogs were done as envisioned them.

### 11.5 Sprints

All the tasks by Gabriel were finished in 4 days. Nuno hasn't finished the inventory yet, asking more one week to finish it, if nuno doesn't finish the inventory by the end of the Sixth Sprint, Gabriel will be responsible for it.

### 11.6 Analysis

In this sprint, most of the work was accomplished in 4 days, Nuno still had a lot of difficulty with the inventory, and did not accept help from Gabriel.

### 11.7 Tasks Review

Most of the tasks were accomplished with the delay of the inventory, and a reorganization of the backlogs for the companion app as the old backlog in focus wasn't learned.

## 12. Sixth Sprint

### 12.1 Review And Retrospective

During the sixth sprint, the team focused on the improvement of the Final Boss and correction of animation bugs which cost a lot to the computer process. With all of those jobs done, the average frame per second doubled (to 2100.).

#### 12.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Bugs Fixed Based in Testers	3 Hours	Gabriel	Yes	High	Completed
Meeting With the Artist about the NPC's art	4 Hours	Gabriel	N/A	High	Completed
Final Boss Interest Time	1 Hour	Gabriel	Yes	High	Completed
Archer Animation	1.5 Hour	Gabriel	Yes	Low	Completed
Archer Projectile Animation	0.5 Hour	Gabriel	Yes	Low	Completed
Pause Menu	2 Hours	Gabriel	Yes	Low	Completed
Inventory	7 Hours	Nuno	No	High	Surrender
Inventory Done From the ground	8 Hours	Gabriel	Yes	High	Completed

#### 12.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Wiki	4 Hours	Gabriel	Yes	High	Completed

- In the game and in the Companion App, all the tasks were completed with the exception of the Inventory. Nuno finally accepts help and surrenders this task.

### 12.2 Plans For The Nexts Sprints

#### 12.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Slime King Behavior	X Hours	Gabriel	No	High	Not Started

Soldier Animation	X Hour	Gabriel	No	Low	Not Started
Item Store	X Hour	Gabriel	No	High	Not Started

### 12.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Map	X Hours	Gabriel	No	High	Not Started

## 12.3 Objectives

The main objective of the Sixth Sprint was to have a full level developed, and everything working for the first Alpha of the game. Gabriel finished solving all the problems found in the game, including the feedback of the testers. Nuno was initially responsible for the inventory, having problems and asking for Gabriel to assume the task.

## 12.4 Backlogs

The Task in both game and the app backlogs were done by Gabriel, having problems and the changes of responsibility. Nuno couldn't finish his Backlog.

## 12.5 Sprints

The Tasks were completed by Gabriel during the first days of the sprint. Nuno gave up his task due to problems in the code.

Gabriel Managed to work and finish 90% of the inventory, the only thing that is in need to finish the inventory is to set items active for the player (Swords and Shields), potions are already working.

## 12.6 Analysis

In this sprint, most of the work done was accomplished in 9 days. Due to personal problems and problems inside the group, the inventory hasn't been finished properly, the inventory has an error due to the change of scene.

## 12.7 Tasks Review

The tasks were accomplished with delays in the game area, something that will be compensated in the following weeks. The companion app has some problems so be solved, but nothing that will create problems in the future.



## 13. Seventh Sprint

### 13.1 Review And Retrospective

During the seventh sprint, the team focused on the change of values as the player has the item, and in the Store. Now, having most of the main features of the game implemented.

#### 13.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
New Item? New Values	4 Hours	Gabriel	Yes	High	Completed
Reduction Damage if Shield On	0.5 Hour	Gabriel	Yes	High	Completed
Dungeon 1	1 Hour	Gabriel	Yes	High	Completed
Item Store	8 Hours	Gabriel	Yes	High	Completed
Music	3 Hours	Nuno	Yes	Low	Incomplete
SFX	2 Hours	Nuno	Yes	Low	Incomplete

#### 13.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Map	4 Hours	Gabriel	Yes	High	Completed
50% Challenge	8 Hours	Gabriel	Yes	High	Incomplete

- During this week, Nuno disappeared and wasn't answering any communication method. He came late saying "I'm spending time with my family, I will do 3 tasks and I will send you by github at the end of the holidays."

## 13.2 Plans For The Nexts Sprints

### 13.2.1 Plans For The Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Death Menu	X Hour	Gabriel	No	High	Not Started
Checkpoints	X Hour	Gabriel	No	High	Not Started

### 13.2.2 Plans For Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Finish Training	X Hours	Gabriel	No	High	Not Started

### 13.3 Objectives

The main objective of the seventh sprint was to have all the main features for combat done. Fixing problems, and rush with the companion app to have all the features on it.

### 13.4 Backlogs

The Task in both game and the app backlogs weren't done as envisioned them. Nuno was responsible for the implementation of the music and sound effects, implementing only the music for the neighbourhoods and the walking SFX.

### 13.5 Sprints

The item Store was finished on the first day of the sprint, having small problems that were solved in the second day (With Feedback of testers). That made the general work of the group faster.

### 13.6 Analysis

In this sprint, most of the work done was accomplished in 5 days. Having all of it done by Gabriel, the team will focus on the work of the next sprint, as we have time, we will improve the game for the delivery.

### 13.7 Tasks Review

Gabriel worked in the Companion app, working in the logic for the training system, but having problems with the language (Kotlin). Bruno will give help to finish the development of the companion app. The work was mostly done as we envisioned, having delays on Nuno's work.

## 14. Eight Sprint

### 14.1 Review And Retrospective

During the Eight sprint, the team focused on fixing all the known bugs and sending the Build for testes. As soon as they report arrives, everything will be fixed.

The reports of the game came without any news about bugs. So it can be expected no bugs in the second delivery.

The Companion app is finished with all bugs found and possibly fixed.

#### 14.1.1 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Teleportation Bug	0.5 Hour	Gabriel	Yes	High	Completed
NPC's Bug	4 Hours	Gabriel	Yes	High	Completed
Inventory Fixed and Optimized	2 Hours	Gabriel	Yes	High	Completed
Store Fixed and Optimized	1 Hour	Gabriel	Yes	High	Completed
Rework All Neighbourhoods	4 Hours	Gabriel	Yes	Low	Completed
Second Dungeon	1 Hour	Gabriel	Yes	Low	Completed
Presentation	2 Hours	Gabriel	Yes	High	Completed
Slime King Behavior	1 Hour	Nuno	No	Medium	Incomplete <sup>2</sup>

- During the Eight Sprint, all the work was done by Gabriel.
- Nuno was questioned about his lack of help, he gave the fault for his broken computer.

#### 14.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Challenge	34 Hours <sup>3</sup>	Gabriel	Yes	High	Completed

<sup>2</sup> The code was copied from Archers/Mages, without any difference. So, it will not be available for the second delivery and it was reported to the professors.

<sup>3</sup> Due to problems in the code, Gabriel asked help for José Graça and João Dia, both of them couldn't understand the problem and assumed it to be a problem with the API. Bruno inverted and make it work properly.

## 14.2 Objectives

The main objective of the eighth sprint was to have everything ready and working for the second delivery with the best optimization possible in both Unity Game and Companion App.

## 14.3 Backlogs

The backlogs weren't done as we envisioned them, with the most of the responsibilities in one person only and the overwork during holidays, some features may not be as optimized as we wanted.

## 14.4 Sprints

The optimization of the game and fixing bugs was complete and we are waiting for reports from our testers. As soon as new bugs are reported, they will be fixed to deliver the best experience possible.

## 14.5 Analysis

In this sprint, most of the work done was accomplished in 4 days.

## 14.6 Tasks Review

Gabriel worked in the Companion App, working in the logic for the training system, and in the Unity Game to optimize, fixing bugs and creating the Build for the testers. The companion app is done.

## 15. Ninth Sprint

### 15.1 Review And Retrospective

During the ninth sprint the group spent some time to rest, having a week off to relax.

#### 15.1.1 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Presentation	2 Hours	Gabriel	Yes	High	Complete
Documentation	4 Hours	Gabriel	Yes	High	Complete
Bugs Fixed	1 Hour	Gabriel	Yes	High	Complete

- During the Ninth Sprint, all the work was done by Gabriel.

#### 15.1.2 Normanda Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
N/A	N/A	N/A	N/A	N/A	N/A

### 15.2 Objectives

The main objective of the ninth sprint was to have everything ready for the presentation, the presentation has been practiced at home.

### 15.3 Backlogs

The backlogs were done as envisioned. During Sunday and Monday, Gabriel spent some time helping other groups

### 15.4 Analysis

In this sprint, most of the work done was accomplished in 2 days.

### 15.5 Tasks Review

Gabriel worked in all the documentation and PowerPoint for the presentation.

## 16. Tenth Sprint

### 16.1 Review And Retrospective

During the Tenth Sprint a lot of work was dedicated to the hackathon. Gabriel spent 3 days in college to finish as soon as possible and to work in the backend of the game.

#### 16.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Mage Shot Randomizer	1 Hour	Gabriel	Yes	Low	Completed
Initial Item	0.5 Hours	Gabriel	Yes	High	Completed

- During the Tenth Sprint, all the work was done by Gabriel.
- The Hackthon started, creating delays in the work of the project.

#### 16.1.2 Normanda Server

Task	Time Needed	Responsable	Tested?	Priority	Stage
New DataBase	3 Hours	Gabriel	Yes	High	Completed
Simple Server Running	4 Hours	Gabriel	Yes	High	Completed
Gets From the Database (Tested, but no implemented)	2 Hours	Gabriel	Yes	High	Completed

### 16.2 Objectives

The main objective of this was to have a server running, able to change information with the database, and the creation of a logic for the login in the unity game.

### 16.3 Backlogs

The backlogs were done as we envisioned them. The improvement was slow this week because the Hackaton took most of the time from the group.

### 16.4 Sprints

As the math professor gave the idea last week, the idea for the combat was implemented in the game.

## 16.5 Analysis

In this sprint, most of the work done was accomplished in 3 days.

## 16.6 Tasks Review

All the work was done by Gabriel as Nuno doesn't answer about being in the group or not.

## 17. Eleventh Sprint

### 17.1 Review And Retrospective

During the Eleventh Sprint the hackathon was finished and the focus of the team was with the polishing of the game, fixing small issues.

#### 17.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
New Menus Background	4 Hours	Gabriel	Yes	Low	Completed
Delay in the Attack	4 Hours	Gabriel	Yes	High	Completed
Confirmation Button in Store	2.5 Hours	Gabriel	Yes	High	Completed
Creation of NPC's	2 Hours	Gabriel	Yes	High	Completed
Art/Animation Boss D1	6 Hours	Gabriel	Yes	High	Completed
Dungeon 1 - New Level Design	1.5 Hours	Gabriel	Yes	High	Completed
Item Information in Inventory	2 Hours	Gabriel	Yes	High	Completed

- During the Eleventh Sprint, all the work was done by Gabriel.
- "Delay in the Attacks" took Gabriel some time as he didn't know about the function Invoke, and tried several times to create Timers without success, after some research this function was found and the problem was fixed in 10 minutes.
- Shot Randomizer was removed as it was having a lot of problems during the fights in the dungeon.

#### 17.1.2 Normanda Server

Task	Time Needed	Responsable	Tested?	Priority	Stage
Logic for Login/Register	3 Hours	Gabriel	Yes	High	Completed
Gets From X user_ID	1 Hour	Gabriel	Yes	High	Completed
Adapt to Unity and working	10 Hours	Gabriel	Yes	High	Surrender for now



## 17.2 Objectives

The main objective of this sprint was to polish the game, to have the last week focused in the backend with the help of the professors. Backend is one part that normally creates problems for Gabriel.

## 17.3 Backlogs

The backlogs were done as we envisioned them. The improvement was well and not only focused in the game, practicing presentations and body behavior during one.

## 17.4 Sprints

All the work was done for fulfilling one of the last weeks of development .

## 17.5 Analysis

In this sprint, most of the work done was accomplished in 6 days.

## 17.6 Tasks Review

All the work was done by Gabriel as Nuno doesn't answer about being in the group or not.

## 18. Twelfth Sprint

### 18.1 Review And Retrospective

During the Twelfth Sprint the hackathon was finished and the focus of the team was with the polishing of the game, fixing small issues.

#### 18.1.1 Normanda Unity Game

Task	Time Needed	Responsable	Tested?	Priority	Stage
Login	4 Hours	Gabriel	Yes	High	Completed
Register	3 Hours	Gabriel	Yes	High	Completed
Post/Get Gold in backend	2 Hours	Gabriel	Yes	High	Completed
Post/Get Exp in backend	5.5 Hours	Gabriel	Yes	High	Completed
Post/Get Level in backend	0.2 Hours	Gabriel	Yes	High	Completed
Post/Get HP in backend	0.5 Hour	Gabriel	Yes	High	Completed
Post/Get Inventory	4 Hours	Gabriel	Yes	High	Incomplete
Instructions	1 Hours	Gabriel	Yes	High	Completed
Delivery Report	1 Hours	Gabriel	Yes	High	Completed
Spec Sheet	3 Hours	Gabriel	Yes	High	Completed
GDD Update	6 Hours	Gabriel	Yes	High	Completed
Review of the Sprint Reports/Production Plan	4 Hours	Gabriel	Yes	High	Completed
Teaser Trailer	6 Hours	Gabriel	Yes	High	Completed
Presentation	2 Hours	Gabriel	Yes	High	Completed

- During the Twelfth Sprint, all the work was done by Gabriel.
- Gabriel wasted about 3 hours testing the Update of Exp and Level in the wrong enemy and trying to solve a problem that didn't exist.
- Gabriel surrenders about getting the inventory of the player for a lot of problems and a lack of help.

### 18.1.2 Companion App

Task	Time Needed	Responsable	Tested?	Priority	Stage
Logic for Login/Register	5 Hours	Gabriel	Yes	High	Completed
Get Stats Based on ID	3.5 Hours	Gabriel	Yes	High	Completed
Maps Backend	4 Hours	Gabriel	Yes	High	Incomplete
Challenge Backend	5 Hours	Gabriel	Yes	High	Incomplete

### 18.1.2 Server

Task	Time Needed	Responsable	Tested?	Priority	Stage
Logic for Login/Register	3 Hours	Gabriel	Yes	High	Completed
Gets From X user_ID	1 Hour	Gabriel	Yes	High	Completed
Logic For the Challenge	1.5 Hour	Gabriel	Yes	High	Completed
Adapt to Unity and working	10 Hours	Gabriel	Yes	High	Completed

## 18.2 Objectives

The main objective of this sprint was to finish the whole game, it's backend and ecosystem.

## 18.3 Backlogs

The backlogs were done as we envisioned them. The improvement was huge considering the problems Gabriel had last semester with the backend.

## 18.4 Sprints

All the work was done for fulfilling the last weeks of development .

## 18.5 Analysis

In this sprint, most of the work done was accomplished in 5 days, with a huge rush and enormous amount of stress.

## 18.6 Tasks Review

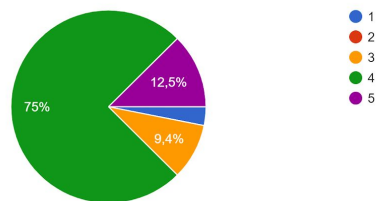
All the work was done by Gabriel as Nuno doesn't answer about being in the group or not.

## 19. Testers & Testers Opinions

Here we have the grades and opinions from testers, all their opinions were considered during the development to make the game as best as we could.

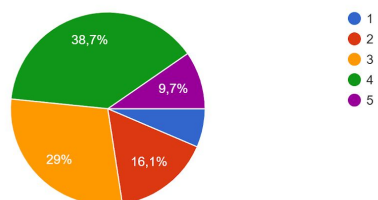
## 19.1 Overall Grade Of the Game

Overall Grade for The Game  
32 respostas



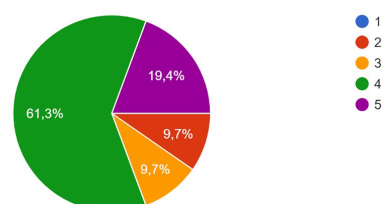
## 19.2 Overall Grade Of the Game

How Difficult Was The Game?  
31 respostas



## 19.3 Grade for the NPC's sentence and behavior

Did you enjoy the Npc Sentences and behavior?  
31 respostas

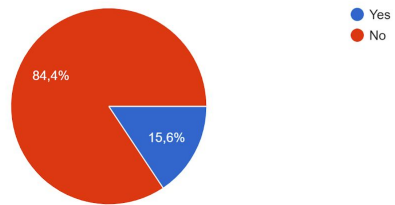


### 19.3.1 Testers written comments

The huge majority (78.7%) of the testers liked the jokes, the comments were more related with an unexpected behavior, like the npc keep walking if you enter his "Talking zone", some dark jokes, and others.

## 19.4 Any Bugs Found?

Any Bugs Found In This Build?  
32 respostas



### 19.4.1 Bugs Comments

The majority of bugs were simple to solve, and just a few commented about the lack of path in some NPC's. With the use of `Vector2.MoveTowards`, enemies can be walking into a wall, this problem couldn't be solved, the amount of time in this project was limited and the focus was in advancing.

## 20. General Structure

### 20.1 GitHub Structure

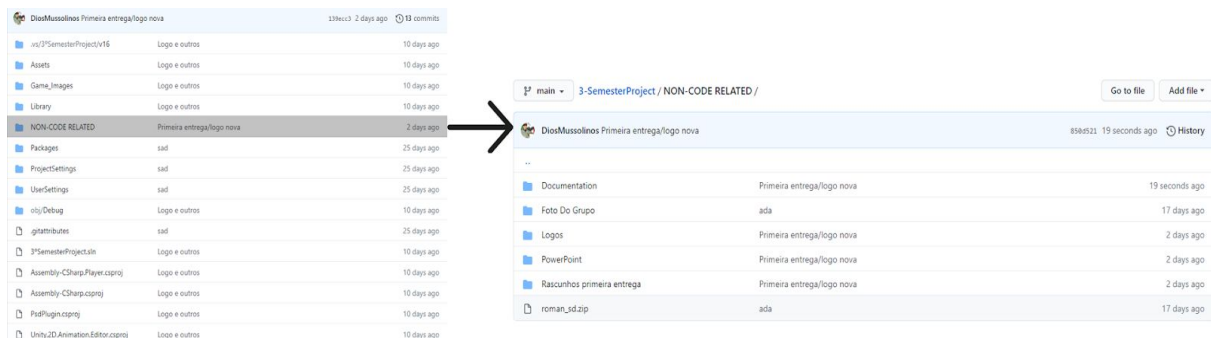


GitHub works by sharing documents and being able to change them without sharing the document, only the part that was changed is sent to a repository.

On the project, we will use GitHub to transport all the information in all the integrants of the groups. Normanda's GitHub has 10 folders, the Folder "NON-CODE RELATED" will be one of the most important ones, it is divided into 7 folders, "Documentation", "Foto Do Grupo", "Logos", "PowerPoint", "Rascunhos primeira entrega", "Rascunhos segunda entrega", "Rascunhos terceira entrega".

The folder for all the art is on github too. You can find it by "Assets", "Images&Animation". All the files related to art must be delivered there and organized by subject ("Player", "Enemy" or others), for the final division a nested folder for the characteristics of the art ("3D", "Icons", "Pixel" or others).

All the files will be shared by GitHub in a private repository that the team has access to, the



public build will be left in a public repository that will mark the team as the creators.

## 20.2 Slack



Slack is an application to communicate in text, and share files. All the documents, art and functionalities of the game must be sent to slack to have opinions about it, and reports by professors as they must be in the group Channel.

## 20.3 Google Docs Structure



Google Docs

All the documentation will be done in google docs, as completed, they will be exported as .pdf files to the GitHub folders. The Google Docs are available in miro to comments, but only the team has the possibility of direct change in the documentation.

## 20.4 Click Up Structure



On the project click up, there is only one folder, with 4 lists. "Unity Game", "Companion App", "Server/Database", and "PROBLEMS TO SOLVE". The responsibilities will be divided according to each folder, and the problems must be communicated in the "PROBLEMS TO



SOLVE” list, this list exists to expose every problem and bug that we have, setting it as “OPEN” the team will know that the problem exists, “IN PROGRESS” the team will know that someone is trying to fix it, and “Closed” the team will know that was solved.

## 20.5 Google Drive Structure



On google drive we have 3 main folders, “Sprint reports”, “Documents”, “Builds”. Where we will leave the documents available to all the professors and others interested in this game.

In “Builds”, there is a nested folder with comments about each build. These comments must show the stats of the game inside of the Unity Engine following the current example.

```
/////////////////STATS OF THE GAME://///////////////
Average Frame Rate: 1920.2 (0.5ms)
Lowest Frame Rate: 1630 (1.0ms)

Average use of the CPU: 2.5%
Average use of the GPU: 1.0%
```

## 21. Final Comments

The biggest problem in this project was the personal problems, lack of help from partners and demotivation during some weeks. Besides that, the help and support of the professors are substantial to this project, the work on it was consistent and organized, taking easier tasks a small period of time and always advancing.

This semester, for me, was the semester to prove my value and this is one of the reasons that I worked my best in every subject. During the weeks before the start of the semester, I noticed that all good students already had a partner. I made some research about students based on the trailer and in what I could remember of their last projects, I asked some students about their last partners, and I reached Nuno.

It wasn't really lucky for me, but I managed to do all that I could by myself, trying my best to have a really good grade and maintain my mental health in a good position.

During the last sprint, unfortunately, I spent a huge amount of hours on the computer without going out and making 1 or 2 meals per day, and having 3 burnouts in a week. Something might be missing in the project for the last delivery, but it was MY decision of returning to a healthy life and slowing down so my mental health got well.

I'm really proud of my work, but at the same time kinda upset because if i had a better start i could have done all in time and better.

### 21.1 Conclusion

I'm really happy with the struggles I faced and how I manage to solve it. Vasco Soares is one of the reasons that I had an evolution as a programmer, besides all the personal problems we had, I'm really grateful for him.

I'm really grateful for the help and support from my professors, and really especially thanks for my family that listened to me and gave me advices to solve my problems in the most professional way possible.

I think that if any professor had questions about my abilities, this project is the perfect answer. I had fun coding, and if I had one more week I could deliver everything in time and working even better.

