NORMANDA

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

Game Design Document 2.0.0

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Table Of Content

1. Introduction

This document specifies the details of Normanda, a 2D isometric pixel art single-player dungeon crawler, with mechanics. Such as a combat system, internal economy, and training.

The game has a medieval european theme which results in both european like city and characters. The player is known as "The Adventurer", being a knight that came to the city to defeat the monsters and bring peace. The city has 2 neighborhoods to explore and 2 dungeons, one dungeon for each neighborhood.

Normanda has the main objective of cleaning dungeons to reach the main villain. The objective of the game is to both become stronger gaining experience from each enemy killed and training in the mobile application.

Normanda is inspired by games such as "Minecraft Dungeons", "Rogue Empire" and "Shin Megami Tensei: Devil Summoner". The idea came from "Minecraft Dungeons", the idea changed to fit this specific project.

1.1 Description

Normanda is a game that will be divided into 2 parts. Exploration of the city with the help of wood plaques, the exploration of dungeons, and the objective of cleaning them.

The wood plaques will guide the player through the city, showing the direction to each dungeon and the amount that exists in that direction. For the vertical slice the game will include 2 dungeons and 2 neighborhoods of the city, each dungeon will be in a different neighborhood.

2. Gameplay

After opening the game, the player will be sent to the first screen of the game, showing the character getting into the city and a dialog showing the lore. The player will be introduced to the wood plaques, showing the direction and quantity of the dungeons that he must do to complete the game.

As the player progresses, he will level up and become stronger with more damage, and speed.

2.1 Camera

2.1.1 In game

The camera in Normanda follows the player without any delay, being a child of the player inside the hierarchy of unity. "InGame" scenes, where the player can control the character, the camera has the same behavior.

2.1.2 In menu

In "Menus", the camera behaves as a cinematic camera, having specific waypoints that it will follow. The specifications for each waypoint can be finded in "2.5 Interfaces", where each interface that fits the "In Menu" characteristics has a table about the camera's waypoints.

2.2 Mechanics

This section will define the details about characters and enemies. Detailing more about their attacks, defenses, and base level stats.

2.2.1 Player Character

The playable character is a soldier with 1.068187, 0.9893478 scale in both X and Y axis. He will be called by Npc's as "Adventurer", the Adventurer has life points based on his level. He has 2 different attacks and a block option to defend from all the enemies.

- **Movement**

The player will move in the X and Y axis, with a speed of 6. As the game has an orthogonal viewpoint (Top-down with perspective), the player will not be affected by gravity or any force related.

- **Basic Attack**

Clicking the left mouse button (Mouse1/Fire1) will activate the basic attack dealing damage based on the level of the player.

The Basic Attack can hit multiple enemies in a range of 0.226 and 0.5 in both X and Y axis, the attack has a 1 second cooldown.

- **Strong Attack**

Holding the right mouse button (Mouse2/Fire2) will activate the Strong Attack dealing 150% damage based on the level of the player.

The Strong Attack can hit multiple enemies in a range of 0.404, 0.4909 in both X and Y axis, this attack has a 5 seconds cooldown.

- **Block**

Holding the right mouse button (Mouse3/Fire3) will activate the shield blocking 10% armor value from the melee attacks and 100% of range attacks enemies damage. The Block doesn't have any cooldown.

2.2.2 Items

In Normanda, the player can have items that increase the Damage and Defense. The items increase the power or can be consumed by the player to have more health.

Normanda has 3 different types of items, swords, shields, and potions. They can be collected by chest in the dungeons or by buying them with the gold the player gains everytime an enemy is killed.

The items will be created as a ScriptableObject and with the function "CreateAssetMenu".

Type	Item ID	Item Name	Attack	Price
Sword	SicSwo	Basic Sword	5	10
Sword	IerSwo	Radier	10	20
Sword	ArdSwo	Bastard Swords	15	30
Sword	OreSwo	Claymore	20	40

Type	Item ID	Item Name	Defense	Price
Shield	SicShi	Basic Shield	5	10
Shield	RilShi	Shield of Nombril	10	20
Shield	EonShi	Escutcheon Shield	15	30
Shield	MerShi	Shield of Mortimer	20	40

Type	Item ID	Item Name	Health	Price
Potion	AllPot	Tall health potion	5	5
Potion	NtiPot	Venti health potion	15	15
Potion	NtaPot	Trenta health potion	30	50

2.2.3 Enemies

The experience in Normanda is gained when an enemy is killed. There is a formula to update the enemy's base health, damage, and EXP based on the player's level. The gradual increase of difficulty throughout the gameplay will keep the players interested while they master the mechanics.

For every level gained by the player, the stats of the enemies will change, trying to make the game maintain a small level of difficulty even if the player has high levels.

This table describes the update in the stats of the enemies per level.

Enemy	Health	Attack Damage	Attack Cooldown	Gold	Experience
Soldier	N/A	+2	N/A	N/A	+3
Mage	N/A	+2	-0.05	+3	N/A
Final Boss	+10	N/A	N/A	+7	+5

● **Soldier Enemy**

The soldier is displayed on the screen as 1 x 2 scale and has 3 of movement speed. Every soldier is set in specific regions of the dungeon, their locations are defined to block ways through the dungeon.

2.2.3.1 Soldier Behavior

The soldier can see the player with a circular vision (using Vector2.Distance), if the player is at 4f or less of distance, the soldier will start following the player, if he loses the player he will stop and wait for him again.

Stats	Values
Health	35
Soldier Vision	4
Collision Damage	2
Attack Damage	10
Attack Cooldown	1
Gold	10
Experience	5

● **Mage Enemy**

The Archer is Mage on the screen with a scale of 4 x 4 pixels and has 2 of movement speed. The archers are in specific regions of the dungeon, their locations are defined to be settled through long halls and as damage support to the Final Boss.

2.2.3.2 Archer Behavior

The mage can spot the player from 8f of distance (using Vector2.Distance), having a circular vision, the mage will start shooting if he sees the player. But, if the player comes too close, he will move in the opposite direction.

Stats	Values
Health	35
Mage Vision	8
Collision Damage	0
Attack Damage	10
Attack Cooldown	3
Gold	10
Experience	5

2.2.4 Final Boss

The Final Boss is a Lava monster. It has a 6, 6 scale in both the X and Y axis. This Enemy has only one attack, creating an explosion in all directions, with schales of

The Final boss can spot the player with a distance of 8f (using Vector2.Distance). If the player enters this area, will activate the interest of the Boss, going towards the player and attacking.

2.2.4.1 Final Boss Behavior

The Final Boss only leaves his place if he sees the player, besides that, he will be in his starting position.

To increase the difficulty of the game, the player can't go away too much. When the final boss doesn't spot the player for 3 seconds, the final boss will go to his peach and start regenerating health.

Stats	Values
Health	40
Final Boss Vision	8
Collision Damage	4
Attack Damage	20
Attack Cooldown	3
Gold	25
Experience	20

2.3 Level System

In Normanda, the player gets Exp by killing the enemies, the game has a level system that levels up upgrading the player base life, base armor, and base damage, helping the player in the dungeons. The level is calculating by the following formula:

$$@LevelExp = 10 + (3 * @LevelExp) + (@LevelExp * (@LevelExp - 1))$$

Level	EXP	Base Life	Base Attack Damage	Base Attack Damage
1	10	100	10	20
2	19	105	15	25
3	25	110	20	30
4	31	115	25	35
5	37	120	30	40

2.4 Friendly NPCs

There are 2 types of NPCs, they will follow the same logic through the game, but with different behaviors. NPCs will have their sentences declared in an Array of Strings[1], and a randomizer based on the position of the strings will determine what will appear everytime the player passes through them.

● **Dynamic NPCs**

Dynamic NPC will have a route through the map, making the city alive and making comments to the player, if the player decides to interact with them, about the lore of Normanda and joking about the player. The Dynamic NPCs will follow a route in the map that is described in the following tables.

● **Static NPC:**

Static NPC are those who are responsible for a place or objects in the map, such as the barman, and the Blacksmith.

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[1] public string[] dialog= {"The church is closed due the monster situation","God bless you, our savior", "The lord give you the power};
Random.Range(0,dialog.Length); //Sentences for the priest

NPC ID	Path ID	Name	NPC Type	Function
1	N/A	Blacksmith	Static	War Store
2	N/A	River Guardian	Static	Comedy Relief
3	N/A	The barman	Static	Comedy Relief
4	N/A	Seller	Static	Comedy Relief
5	N/A	Seller(1)	Static	Comedy Relief
6	N/A	Seller(2)	Static	Comedy Relief
7	N/A	Seller(3)	Static	Comedy Relief
8	N/A	Seller(4)	Static	Comedy Relief
9	N/A	Seller(5)	Static	Comedy Relief
10	N/A	Seller(6)	Static	Comedy Relief
11	1	Priest	Dynamic	Comedy Relief
12	2	Blacksmith Son	Dynamic	Comedy Relief
13	3	Citadel Soldier	Dynamic	Comedy Relief

NPC ID	Path ID	Position 1	Position 2	Position 3	Position 4	Position 5	Position 6
11	1	(49,1.2)	(49,8.2)	(29,8.2)	(29,1.3)	(22.7,1.3)	(22.7,1.3)
12	2	(-10,3.5)	(-4.6,1.61)	(-10,-0.84)	9,4(-10,-6)	(-26,-6)	(-27.4,-3.9)
13	3	(8.43,0)	(8.43,10)	N/A	N/A	N/A	N/A

NPC ID	Path ID	Position 7	Position 8	Position 9	Position 10	Position 11	Position 12
11	1	(22.7,1.3)	(22.7,1.3)	(13.4, -3.9)	(13.4,-8.8)	(58.8,-8.8)	(58.8,-4.4)
12	2	(-24.8,-4)	(-26,4)	(-27.4,-3.8)	(-24.8,-4)	(-26.5,-4)	(-26.5,-6.3)
13	3	N/A	N/A	N/A	N/A	N/A	N/A

NPC ID	Path ID	Position 12	Position 13	Position 14	Position 15	Position 16	Position 17
11	1	(59.9,-4.4)	(58.8,8.3)	(59.9,8)	(13.2,-8.8)	(13.2,-4)	(49.1,-4)
12	2	(-9.5,-6.45)	N/A	N/A	N/A	N/A	N/A
13	3	N/A	N/A	N/A	N/A	N/A	N/A

2.4.1 Dialog Script

NPC ID	Sentence
2	A lot of people don't take my job seriously because they think I literally guard a river.
2	If you die, can I keep your equipment?
2	Beware, big monsters ahead. whispers not as big as your mom though.
2	People never realize how lonely it is to guard a dungeon. You will be my friend, right?
2	My dream was to be a hero, but then you came along. Guess I can't be a protagonist, huh?
2	People say if you hold the down and B button you have a higher chance of capturing a monster. Not sure about that though.
2	The monsters took my wife away from me, that's why i'm here...
2	Oh yes, look at me. I'm a guy with armor that exist to tell people about a portal. I'm so important...
2	I was once known as Black Knight, i used to live in Monty Python
2	None shall pass, if you pass, you shall die.
2	I move for no man.
2	This is only a scratch, I'M INVINCIBLE!
3	The majority of people die at 30. If I can't sell my drinks to minors I will go bankrupt!
3	I'm thinking of buying the upstairs floor and expanding my business with women, if you know what I mean.
3	Believe me or not, my most loyal consumer is the priest.
3	The best part of my job is confessing weird things to drunk customers and then saying I never said anything. You should see their faces.

|	
3	If you need a therapist it's on the other side of the street.
3	Drink options? I have green ale, orange ale, and red ale. It's a medieval game, what did you expect?
3	I listened about a princess that went to the other world and never came back. There are rumors that she is a god now.
3	Last time someone like you arrived, the princess wasn't kidnapped and we had a king.
3	My child, you wouldn't believe all the stories that I have listened to in my life.
3	With all the problems that we have, there is a punk around that poison peoples drinks. Don't accept anything from strangers...
3	A wise man once told me: "be drunk during a fight, so you don't notice if you lose".
3	Everything can be solved with a drink, a sword and a woman!
4 until 10	Come on, look to the Stores
4 until 10	Interested in something?
4 until 10	What about some flowers for your girlfriend?
11	I have always been a fan of Michael Jackson. I love how he inspires the youth.
11	Please stop pestering me. God's hand may be invisible, mine is not.
11	Outsides should be welcome, as long as they help to maintain the peace of our land.
11	The rules never mentioned kids...
11	Please stop pestering me. God's hand may be invisible, mine is not.
11	Morning Son, if you are here for the prayer we are close.
11	Yeah, I know, a city in danger, we are all close... And people can't even pray...
11	Imagine being a priest and need to explain what is happening to others.
11	I really don't understand what happened, I know that a lot of people disappeared and adventurers never came back.
11	This started two months a go... People are already starving as they are locked in their homes...
11	As a priest I must give people hope with words, could you give them with you actions?

11	"Strange women lying in ponds distributing swords is no base for the government". I prefer the idea of a god.
12	My dad said he can make 6 million swords in the oven over 5 years, I don't believe him. It's simple mathematics!
12	I don't have the strength to hold a hammer yet. But someday I hope I have it so I can bang it really hard. Swords of course.
12	I do really want to be a soldier, but the family business will be ruined...
12	Want to make an order? Talk with my dad, I'm 10...
12	Let me play!
12	I'm not supposed to talk with strangers...
12	Please, leave me alone...
12	Why are you in my house?
12	Can I play with your sword?
12	You know, I have a shield just like your's.
12	I just hope i don't die for Measles
12	Buy something from my dad, I'm hungry...
13	Look somewhere else!
13	...

2.5 Interface

There are 7 main screens/popups in Normanda:

1. Gameplay Screen
2. Inventory Popup
3. Item Store Popup
4. Main Menu Screen
5. Options Menu Screen
6. Info Menu Screen
7. Pause Menu Screen
8. Login Screen
9. Create Account Screen

2.5.1 Gameplay Screen
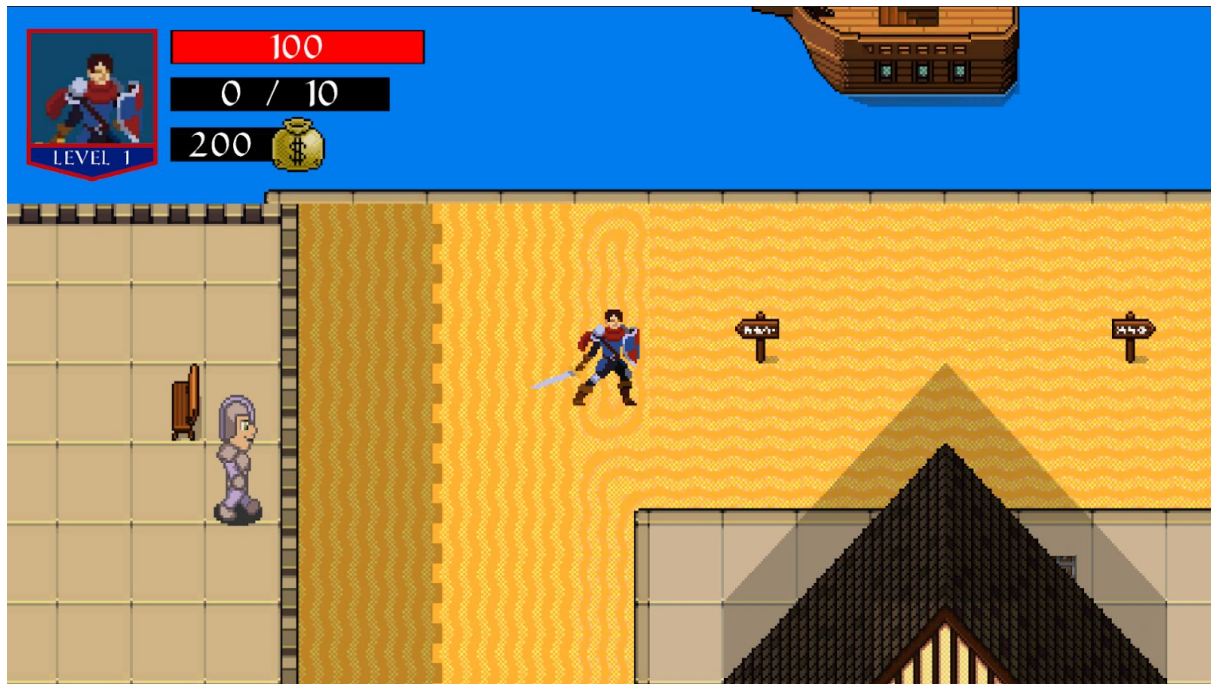
- **Adventurer Photo**
    The adventurer photo has the position in -813, 360 in both X and Y axis, the scale is 218.2, 252.81 in both X and Y axis. This photo has the objective of giving a more nostalgic look to the game, inspired in Rogue Empire.

- **Level 1**
    The Level displayer has the position in -812.35, 273.6 in both X and Y axis, the scale is 204.8, 29.02 in both X and Y axis.

- **Health bar**
    Health bar displayer has the position in -472.7, 456.7 in both X and Y axis, the scale is 422.49, 56.58 in both X and Y axis.The health is shown only with the numbers inside of the box.

- **Exp bar**
    Experience bar has the position in -502.19, 378.7 in both X and Y axis, the scale is 363.55 and 56.58 in both X and Y axis. The experience bar will show with numbers and the bege that will fill itself depending on the percentage required in order to progress to the next level.
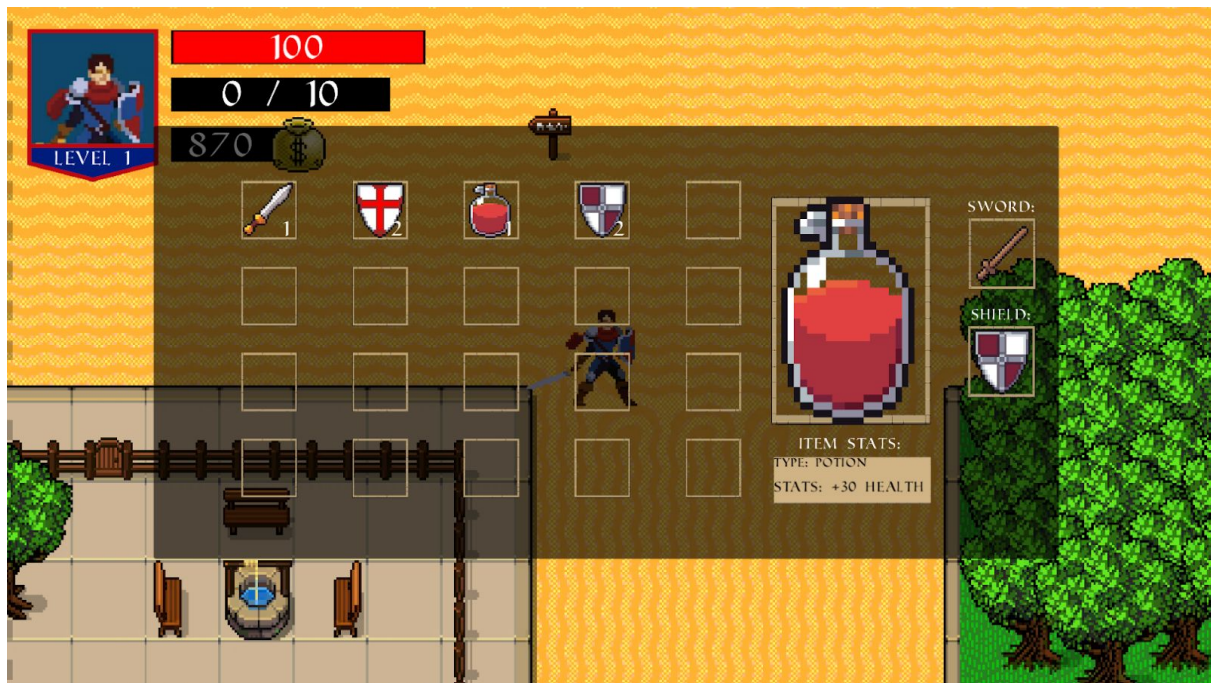

- **Cash Display**
    Cash Display has the position in -570.58, 295 in both X and Y axis, the scale is 226.72, 56.58 in both X and Y axis. The "200" is the initial amount of gold the player has.

2.5.2 Inventory Popup

- **Inventory**

    It is where the player can control his inventory and can activate the item to be used in combat.

    Inventory has the position in 150, 91 in both X and Y axis, the scale is 1448, 692.6 in both X and Y axis, having a panel with a color of (0,0,0,156). Items will be displayed as a grid of 5 x 4, if the player has items repeated, a number of the total items will appear in the bottom right corner. The Slots, Item Picture, Sword and Shield are using the image "Slot_Inventory 1" to delimit the space the item occupies.

    In the inventory, an image of the item appears and the stats of them.

- **Item Picture:**

    The item Picture has the position in 542, 140 in both X and Y axis, the scale is in 285.4972, 383.1949 in both X and Y Axis.

- **Item Stats:**

    The Item Stats has the position in 543.38, -129.1 in both X and Y axis, the scale is in 104.2691, 30.9175 in both X and Y axis. There are 2 texts inside of this box, "ITEM TYPE" shows the item that is selected, and the "STATS" show the effect of the item if activated.

- **Sword:**

    Sword has the position in 783, 232 in both X and Y axis, the scale is in 120.03, 120.03 in both X and Y axis. This box shows the activated sword in the hand of the player.

- **Shield:**

    Shield has the position in 783, 60in both X and Y axis, the scale is in 120.03, 120.03 in both X and Y axis. This box shows the activated sword in the hand of the player.

2.5.3 Item Store Popup

- **Item Store**
    It is where the player can spend his gold, making the adventurer stronger to the challenges of Normanda.
Inventory has the position in 0, 0 in both X and Y axis, the scale is 1327.088, 814.0338 in both X and Y axis, having a panel with the color (0,0,0,156).The Slots, Item Picture, Name and Stats are using the image "Slot_Inventory 1" to delimit the space the item occupies.
    The items are selected by clicking on them and the player can only buy it by confirming the purchase. The item is added to the inventory if the player has enough gold.

- **Gold**
    Gold has the position 455.6, 349.3 in both X and Y axis, the scale is 266.44, 56.58 in both X and Y axis. In this case, the colors of the text are (117,255,0,255).

- **Item Name**
    Item Name has the position -28.36, -146.6 in both X and Y axis, the scale is 499, 56.84 in both X and Y axis.

- **Item Stats**
    Item Stats has the position 29.0739, -55.2 in both X and Y axis, the scale is 499, 56.8455 in both X and Y axis.

- **Confirm Purchase Button**
    Confirm Purchase has the position -5.69, -344 in both X and Y axis, the scale is 311.98, 75.329 in both X and Y axis. Using the Image "PlacaTexto" as image, this Button uses the "ItemStoreButton.ConfirmPurchase" as a function to work.

2.5.4 Main Menu Screen
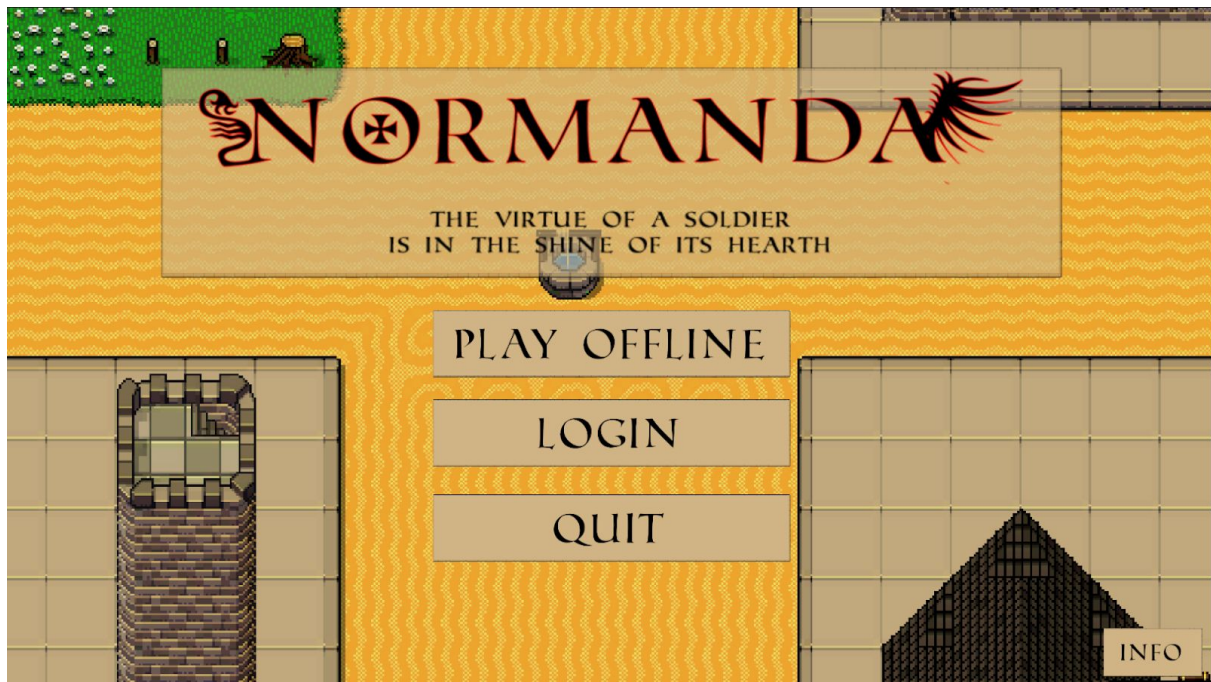
- **Logo:**
Logo has the position 300.79,763 in both X and Y axis, the scale is 1339.72, 329.45 in both X and Y axis. The Logo uses the image "Logo + Phase".

- **Play:**
Play has the position 300.79,465 in both X and Y axis, the scale is 564.29, 105.80 in both X and Y axis. Play uses the image "PlacaTexto" and uses the function MenuFunctions.StartGameWithoutAccount.

- **Login:**
Login has the position 300.7954,334 in both X and Y axis, the scale is 155.60, 75.7 in both X and Y axis. Login uses the image "PlacaTexto" and uses the function MenuFunctions.Login.

- **Quit:**
Quit has the position 300.79,184 in both X and Y axis, the scale is 564.29, 105.80 in both X and Y axis. Quit uses the image "PlacaTexto" and uses the function MenuFunctions.Quit.

- **Info:**
Info has the position 1160,80 in both X and Y axis, the scale is 155.60, 75.7 in both X and Y axis. Info uses the image "PlacaTexto" and uses the function MenuFunctions.Info.

- **Camera:**

  For the Main Menu, we have a cinematic camera going through waypoints to have a better looking Background. The waypoints are shown in the following table.

Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
(76.3, -67.74)	(57.58,-52.27)	(73.62, -38.45)	(57.59, -38.45)	(35.48, -38.45)	(36.55, -51.54)	(35.62, -65.56)	(57.64, -65.51)

2.5.5 Configuration Menu Screen

- **Logo:**

  Logo has the position -12.34, 311.32 in both X and Y axis, the scale is 923.24, 238.57 in both X and Y axis. Logo uses the image "Bloco_Pause_Menu."

- **Music:**

  Music has the position 0, 33 in both X and Y axis, the scale is 719.26, 100 in both X and Y axis. Music uses the image "Bloco_Pause_Menu.

- **Sound Effect:**

  Sound Effect has the position 0, -122 in both X and Y axis, the scale is 719.26, 100 in both X and Y axis. Sound Effect uses the image "Bloco_Pause_Menu.

- **Back Button:**
  Back Button has the position -719, -512 in both X and Y axis, the scale is 425.38, 79.75 in both X and Y axis. Back Button uses the image "Bloco_Pause_Menu.

2.5.6 Pause Menu Screen

- **Logo:**
  Logo has the position 960, 885.9 in both X and Y axis, the scale is 923.24, 238.57 in both X and Y axis. Logo uses the image "Bloco_Pause_Menu."

- **Resume:**
  Resume has the position 960, 607.5 in both X and Y axis, the scale is 477.8055, 99.082 in both X and Y axis. Resume uses the image "Bloco_Pause_Menu and uses the function StopTime.Resume.

- **Options:**
  Options has the position 960, 444.9 in both X and Y axis, the scale is 477.8055, 99.082 in both X and Y axis. Options uses the image "Bloco_Pause_Menu and uses the function StopTime.Options.

- **Main Menu:**
  Main Menu has the position 960, 282.3 in both X and Y axis, the scale is 477.8055, 99.082 in both X and Y axis. Main Menu uses the image "Bloco_Pause_Menu and uses the function StopTime.GoToMainMenu.

2.5.7 Login Menu Screen
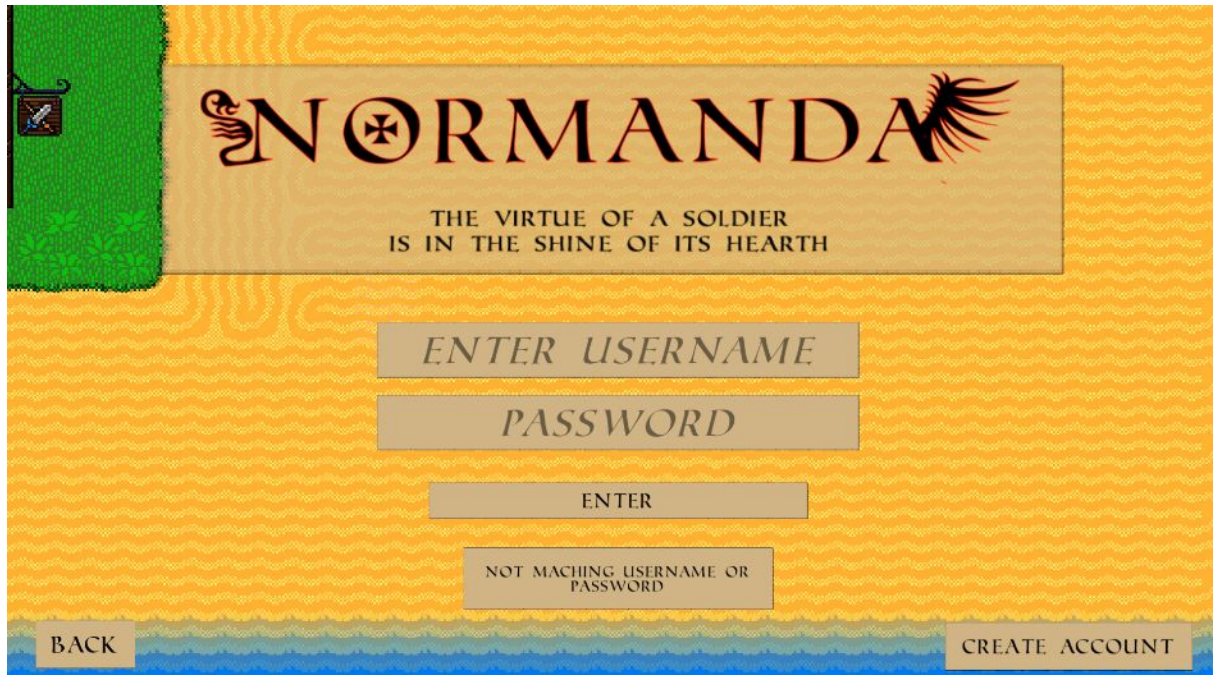
- **Logo:**
  Logo has the position 300.79, 763 in both X and Y axis, the scale is 1339.72, 329.45 in both X and Y axis. Logo uses the image "Logo + Phase".

- **Enter Username:**
  Enter Username has the position 313, 461.4 in both X and Y axis, the scale is 767.21, 89.13 in both X and Y axis. Enter Username uses the image "PlacaTexto" Enter Username is an Input Field.

- **Password:**
  Password has the position 313, 345.6 in both X and Y axis, the scale is 767.21, 89.13 in both X and Y axis. Password uses the image "PlacaTexto".
  Password is an Input Field.

- **Enter Button:**
  Enter Button has the position 313, 221.3 in both X and Y axis, the scale is 602.85, 57.73 in both X and Y axis. Enter Button uses the image "PlacaTexto" and uses the function "MenuFunctions.OnLoginClick".

- **Warning:**
  Warning has the position 308.8583, 417.77 in both X and Y axis, the scale is 493.03, 100 in both X and Y axis. Warning uses the image "PlacaTexto".
  This image only appears if the username or password does not correspond to an existing account.

- **Back Button:**
Back Button has the position -534.2046, -7.5301 in both X and Y axis, the scale is 158.83, 76.46 in both X and Y axis. Back Button uses the image "PlacaTexto" and uses the function "MenuFunctions.BackToMainMenu".

- **Create Account:**
Create Account has the position 1029.6, -11 in both X and Y axis, the scale is 392.67, 76.46 in both X and Y axis. Create Account uses the image "PlacaTexto" and uses the function "MenuFunctions.CreateAccount".

- **Camera:**
For the Main Menu, we have a cinematic camera going through waypoints to have a better looking Background. The waypoints are shown in the following table.

Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
(35.8, 0)	(25.49,-2.02)	(12.48, -2.02)	(-5.88, -2.02)	(0.36, 4.66)	(19.86, 8.92)	(25.11, 3.58)	(33.03, 3.73)

2.5.8 New Account Menu Screen
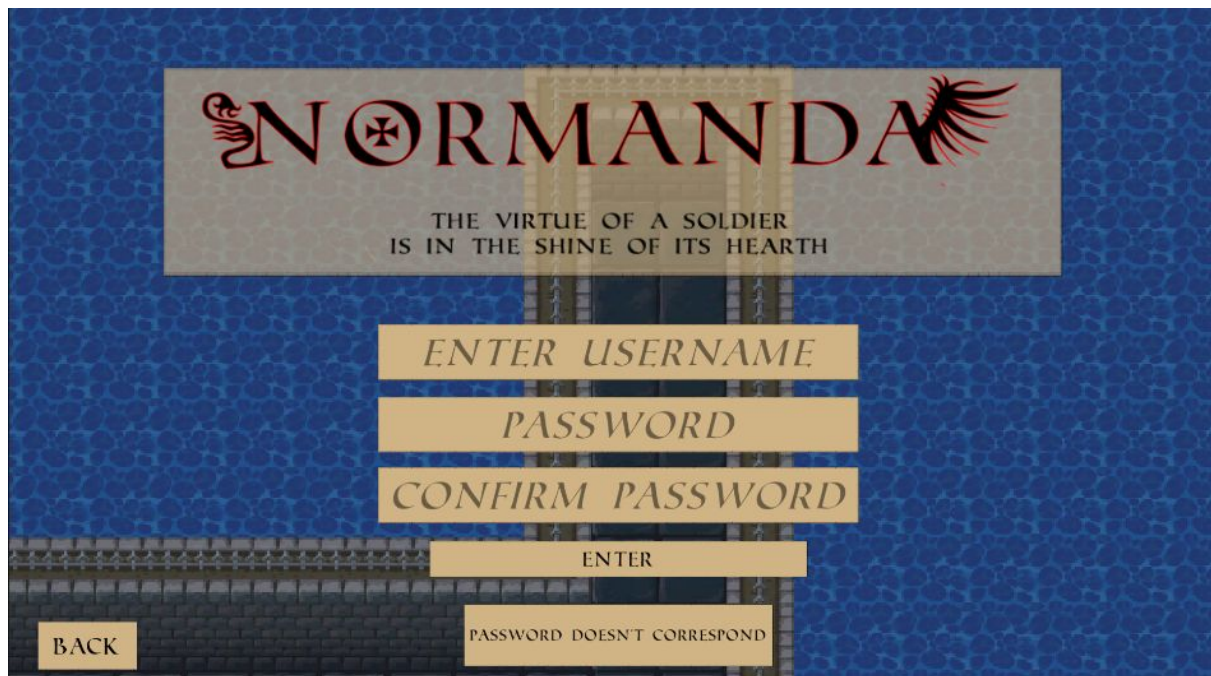
- **Logo:**
Logo has the position 300.79, 763 in both X and Y axis, the scale is 1339.72, 329.45 in both X and Y axis. Logo uses the image "Logo + Phase".

- **Enter Username:**
  Enter Username has the position 313, 461.4 in both X and Y axis, the scale is 767.21, 89.13 in both X and Y axis. Enter Username uses the image "PlacaTexto"
  Enter Username is an Input Field.
- **Password:**
  Password has the position 313, 345.6 in both X and Y axis, the scale is 767.21, 89.13 in both X and Y axis. Password uses the image "PlacaTexto".
  Password is an Input Field.

- **Confirm Password:**
  Confirm Password has the position 313, 232.9 in both X and Y axis, the scale is 767.21, 89.13 in both X and Y axis. Confirm Password uses the image "PlacaTexto".
  Confirm Password is an Input Field.

- **Enter:**
  Enter Button has the position 313, 130.9 in both X and Y axis, the scale is 602.85, 57.73 in both X and Y axis. Enter Button uses the image "PlacaTexto" and uses the function "MenuFunctions.OnLoginClick".
  By clicking in Enter, a verification over the password will happen, if they doesn't correspond, the Error Message appear

- **Error Message:**
  Error Message has the position 308.85, 417.77 in both X and Y axis, the scale is 493.03, 100 in both X and Y axis. Error Message uses the image "PlacaTexto".

- **Back Button:**
  Back Button has the position -534.2046, -7.5301 in both X and Y axis, the scale is 158.83, 76.46 in both X and Y axis. Back Button uses the image "PlacaTexto" and uses the function "MenuFunctions.BackToMainMenu".

- **Camera:**
  For the Main Menu, we have a cinematic camera going through waypoints to have a better looking Background. The waypoints are shown in the following table.

Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
(35.8, 0)	(25.49,-2.02)	(12.48, -2.02)	(-5.88, -2.02)	(0.36, 4.66)	(19.86, 8.92)	(25.11, 3.58)	(33.03, 3.73)

3. Level Design

This section will define the details about levels. Detailing more about the position of the enemies and NPCs.

## 3.1 City Map

3.1.1 Neighborhood 1

- **Number 1: Spawn**
  The start position of the player, the start position is -2.12, -6.18 in both X and Y axis.

- **Number 2: Blacksmith**
  A static npc which works as a store for the player. Selling all the items of the game. Blacksmith position is -1.665, -1.57 in both X and Y axis.

- **Number 3: Blacksmith's Son**
  A dynamic NPC that has the objective of comedy relief. It's a child, his path is described in "Friendly NPCs" with the ID 12 and Path ID 2.

- **Number 4: River Guardian**
  A static NPC that has the main objective of comedy relief. It's a soldier that protects the portal of the dungeon for NPCs. River Guardian has the Position -26.51, -0.04 in both X and Y axis.

- **Number 5: Portal to the Dungeon 1**
  The entrance of the Dungeon is an area with a trigger, if the player collides he teleports to the Dungeon 1. The Portal has the position -26.45, 3.35 in both X and Y axis, the scale is 3.413, 2.24 in both X and Y axis.

3.1.2 Neighborhood 2
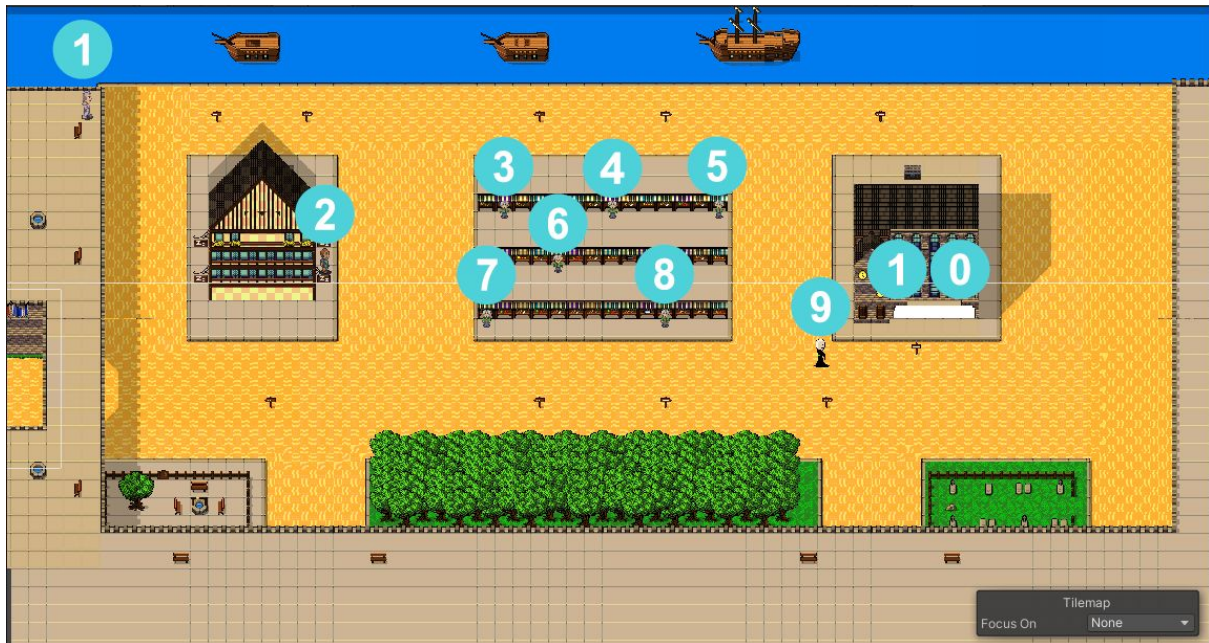
- **Number 1 - Citadel Soldier**
  A dynamic NPC that patrols a small area, path is described in "Friendly NPCs" with the ID 13 and Path ID 3.

- **Number 2 - Barman**
  A static NPC that has the main objective of comedy relief. It's a man that sells drinks to the city, the player can't buy anything from him. River Guardian has the Position -21.49, 1.17 in both X and Y axis.

- **Number 3 to 8 - Seller**
  Statics NPCs that have the main objective of comedy relief and populate the city. It's an old lady selling things to others, the player can't buy anything from her.

- **Number 9 - Priest**
  A dynamic NPC that walks around the city and meets the barmen, path is described in "Friendly NPCs" with the ID 11 and Path ID 1.

- **Number 10 - Portal to the Dungeon 2**
  The entrance of the Dungeon is an area with a trigger, if the player collides he teleports to the Dungeon 1. The Portal has the position 55.61, -1.61 in both X and Y axis, the scale is 4.744592, 0.7038275 in both X and Y axis.
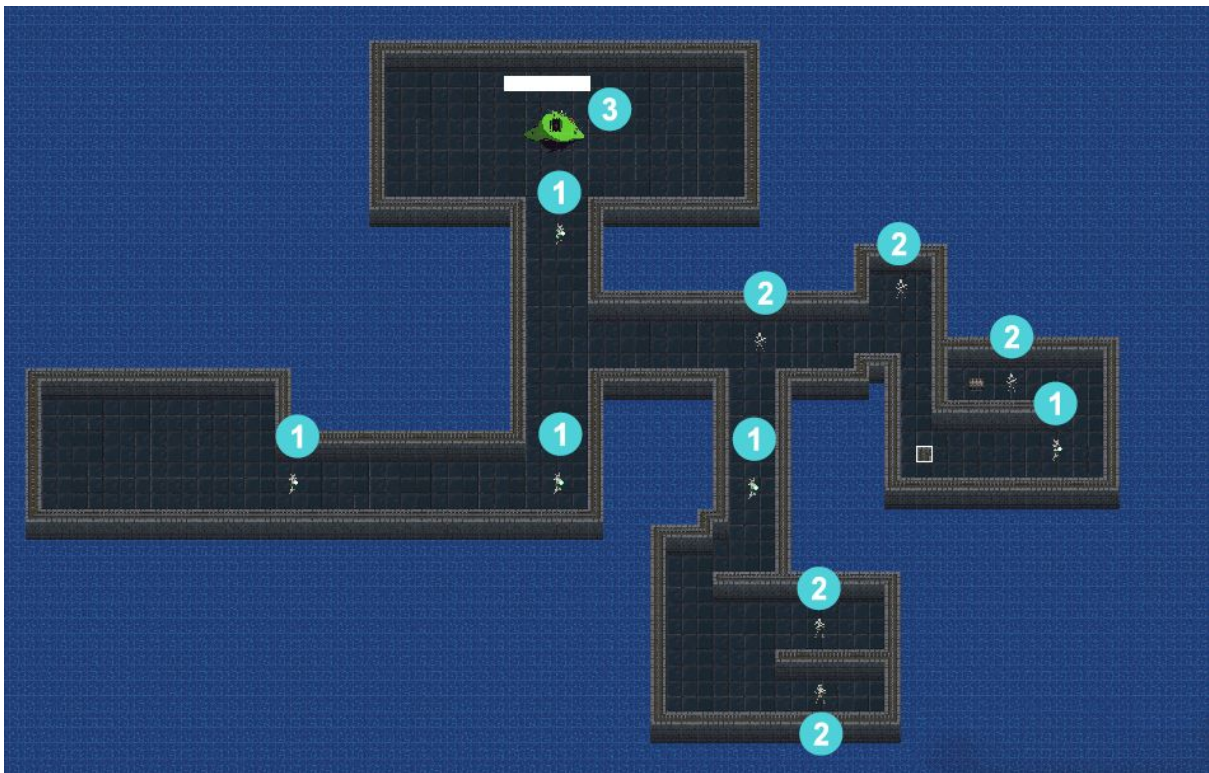
3.2 Dungeons Maps

3.2.1 Dungeon Level 1

- **Number 1**
  Soldier Enemies.

- **Number 2**
  Mage Enemies.

- **Number 3**
  Treasure Chest.

- **Number 4**
  Final Boss.

3.2.2 Dungeon Level 2

- **Number 1**
  Mage Enemies.

- **Number 2**
  Soldier Enemies.

- **Number 3**
  Slime King Enemies (Not yet implemented).

4. Art

4.1 Main Character Art

"Hero Knight" is a free pack from Sven Thole(https://assetstore.unity.com/publishers /31468).

This art was chosen by the group for the quality, and the perfect match with the game idea.

Some changes may be applied to define different items, such as, better swords or shields

4.1.1 Main Character Art License

All of those links were open on the day 31/10/2020.

"Once you have purchased an asset from the store, it becomes yours to do with as you like within your games and apps. You will be able to use them in your game for commercial use with no extra payments.

You can also use free assets in your game for commercial use. Using selected (non-restricted) Unity assets is fine, though be aware that many developers use Unity to create their games and most are aware of the assets we provide.

Unity "Restricted Assets" are subject to restrictions that others are not. These are only valid for personal and non-commercial use only. No other use is permitted, and these Unity assets must not be used in your commercial games.

You cannot duplicate an asset, or include it in an asset-type product."

4.2 Enemies Art

The Enemies art was chosen with the idea of remaining as near as possible to old adventure games, giving nostalgia even in this situation.

4.2.1 Enemies Art License

All of those links were open on the day 31/10/2020.

> "Once you have purchased an asset from the store, it becomes yours to do with as you like within your games and apps. You will be able to use them in your game for commercial use with no extra payments.
>
> You can also use free assets in your game for commercial use. Using selected (non-restricted) Unity assets is fine, though be aware that many developers use Unity to create their games and most are aware of the assets we provide.
>
> Unity "Restricted Assets" are subject to restrictions that others are not. These are only valid for personal and non-commercial use only. No other use is permitted, and these Unity assets must not be used in your commercial games.
>
> You cannot duplicate an asset, or include it in an asset-type product.

4.3 Final Boss Art

The Final Boss is an art created by Gabriel Vergari. He was based on old dungeons monsters and big monsters.
The animation of the final boss shows the player when the attacks will appear.

4.3.1 Final Boss Art License

You are free to:
    Share - Copy and redistribute the material in any medium or format
    Adapt - Remix, transform, an d build upon the material for any purpose, even commercially.

By: Gabriel Vergari

4.4 City Tile Art

The City Tile Art is a free Tile named "Slates", an orthogonal tileset by Ivan Voirol (shorturl.at/lnsG9).

This tile was chosen by the group for the consistency of the art, the possibility of changing details to match the theme.

The tiles will make all the neighborhoods of the city, the rural area, the commercial area and the citadel.

4.4.1 City Tile Art License

All of those links were open on the day 31/10/2020.

"**You are free to**:
 Share - Copy and redistribute the material in any medium or format
 Adapt - Remix, transform, and build upon the material for any purpose, even commercially.

Under the following term:
 Attribution - You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

 No additional Restriction - You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits"

4.5 Dungeon Tile Art

4.5.1 Dungeon Tile Art License

All of those links were open on the day 04/02/2021.

- "You can create one End Product for a client, and you can transfer that single End Product to your client for any fee. This license is then transferred to your client.

- You can make any number of copies of the single End Product, as long as the End Product is distributed for Free.
- You can modify or manipulate the Item. You can combine the Item with other works and make a derivative work from it. The resulting works are subject to the terms of this license.

- You can't Sell the End Product, except to one client. (If you or your client want to Sell the End Product, you will need the Extended License.)

- You can't re-distribute the Item as stock, in a tool or template, or with source files. You can't do this with an Item either on its own or bundled with other items, and even if you modify the Item. You can't re-distribute or make available the Item as-is or with superficial modifications. These things are not allowed even if the re-distribution is for Free."

5. Audio

5.1 Music

5.1.1 City Ambient Sound

Normanda uses "Love the Theme" by Eugenio Mininni as ambient sound in the city (https://mixkit.co/free-stock-music/classical/). The music has a composition usually used in RPG's when the pa, with a happy and calm tone which match perfectly with the sensation that Normanda wants to express in the city. A place where there are no monsters, you can think and relax.

The music was chosen by our group of testers and they voted this as the best choice.

5.1.2 Dungeon Ambient Sound

Normanda uses "Feedback Dreams" by Eugenio Mininni as ambient sound in the dungeons (https://mixkit.co/free-stock-music/tag/horror/?page=2). The music has a composition of darkness and horror, giving the impact of the change of place, to a more dangerous, dark and anxiety situation.

The music was chosen by our group of testers and they voted this as the best choice.

5.2 Music & Sound License

- City and Dungeon Ambient Sound:

  "Items under the Mixkit Sound Effects Free License can be used in your commercial and non-commercial projects for free.

  You are licensed to use the Item to create an End Product that incorporates the Item as well as other things, so that it is larger in scope and different in nature than the Item. You're permitted to download, copy, modify, distribute and publicly perform the Sound Effect Items on any web or social media platform, in podcasts and in video games, as well as in films and presentations distributed on CDs, DVDs, via TV or radio broadcast or internet based video on demand services.

  You can't redistribute the Item on its own, as stock, in a tool or template, or with source files. You're also not allowed to claim them as your own or register them on any rights management service."

- Sound Effects:

"**Royalty Free Sounds**

Royalty Free Sounds are sounds that are free from royalties. They can be used commercially in things like movies, games, and anything else you might need a cool sound for. You may not however redistribute them for a profit. While sending one to a friend is ok, selling one to a customer is not.

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Creative Commons Attribution 3.0 is one of many CC Audio types. Creative Commons Attribution 3.0 put simply means you can use this audio but you must attribute your work to this person. If the audio is from Mike Koenig then you need to give him credit somewhere. That somewhere could be in the credits, the cd cover, or a link to the sounds page from your site.

Public Domain Sounds

Public Domain Sounds are sounds that have been added to the public domain. They are owned by the public, and are 100% free. Items get added to the PD in a variety of different ways. 1.) Items older than the public domain age setting are automatically added. 2.)Thoughtful members of the audio community donate their own works for the good of others. 3.) Speeches by presidents and other political audio is usually considered public domain works."

6. Companion App

There are 6 interfaces in Normanda:
1. Splash Screen
2. Login
3. Stats
4. Wiki
5. Treasure Hunt
6. Challenge

6.1 Splash Screen
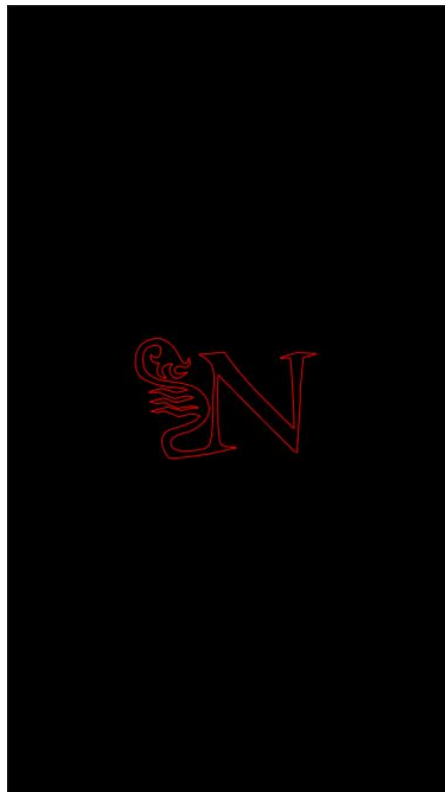
- **N:**

"N" is a simpler version of the logo, used in this case to simplify and make a neutral look for the splash screen. N is centralized in the screen in both X and Y axis.

6.2 Login Screen

- **Logo:**
  Logo has the position of 368, 192 in both X and Y axis.

- **Username:**
  An "AppCompatEditText" with Hint "USERNAME", corners with 20 dip radius.

- **Password:**
  An "AppCompatEditText" with Hint "PASSWORD", corners with 20 dip radius.

- **Sign in:**
  An "AppCompatButton", corners with 20 dip radius. It calls the function to login, if the username and password are correct, it will return the ID and have all the other information that the app needs based on this ID.
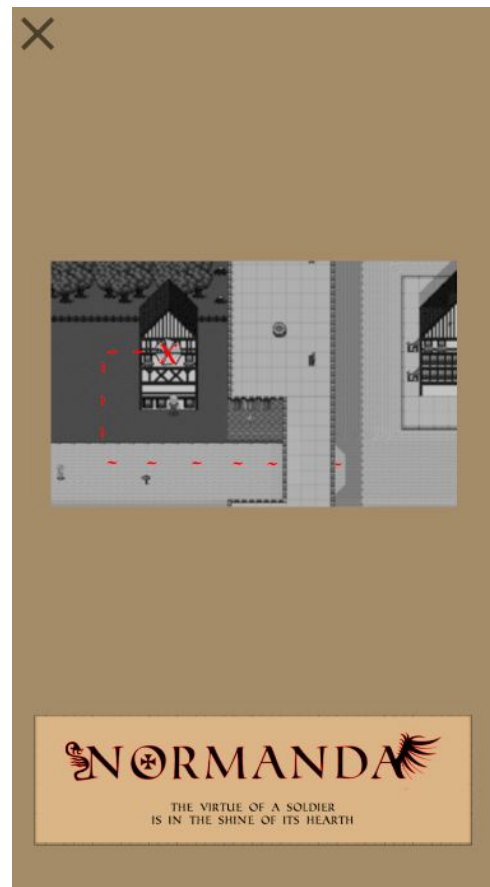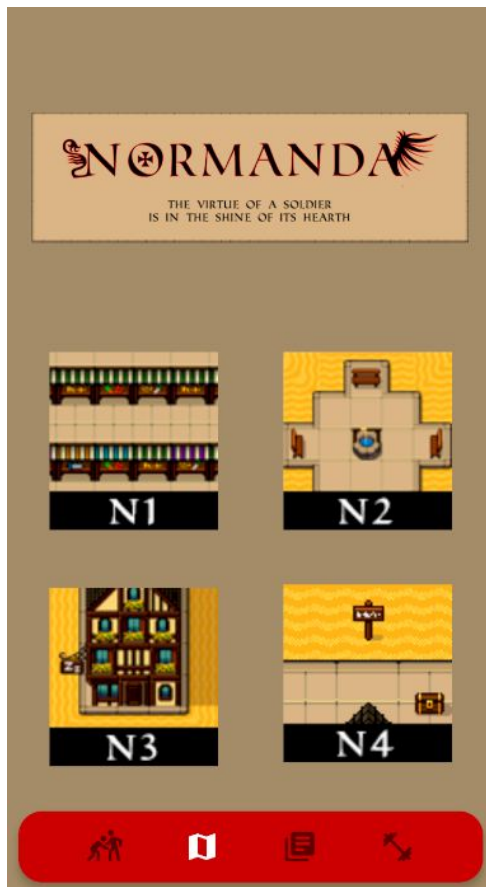
6.3 Stats

Stats is the screen that appears right after the login happens. Here the player can see his health, gold, experience and level. As the information in the game might change, the player must go to another activity or restart the app to get the new information.

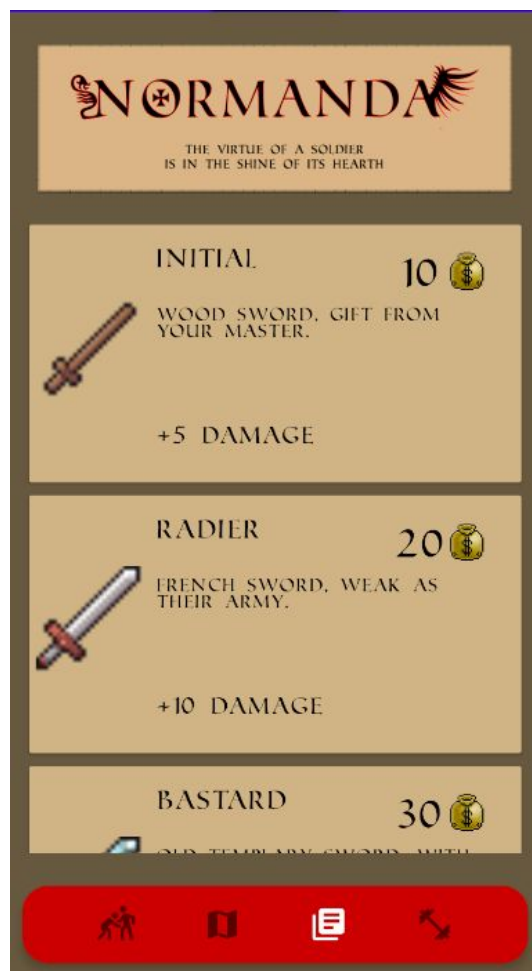This is caused by a non-updatable system in android studio.

6.4 Treasure Hunts

Treasure Hunt has a map for each map of the city. All the players start with N1 activated and having the map inside that chest open N2 in the app. This continues as the player progresses.

Now there are only N1 and N2 available.

6.5 Wiki

Wiki will include all the information about all the items, in the companion app. The item list is a recyclerview. The user scrolls down to see the other items, the other of the items are the same in the store of the game, keeping a systematic info
Any additional item, such as, Map To N1 and Map To N2 will be the last ones.

6.6 Challenge

In the training, we have a system that the player will select an amount of time and will be present with a challenge of killing enemies based on the time. If this challenge is completed, the player will receive a bonus XP, making the player stronger.

- **Set a New Challenge:**
  Set a new Challenge is a button that will open the Timer

- **Timer:**
  A clickable number that opens a timer and the user selects the amount of time he wants for the challenge. The time runs even if the app is closed.

- **Stop:**
  Stops the time, cancelling the current Challenge.

- **Start:**
  A bottom that must be clicked 2 times to start the amount of time selected.

- **X:**
  Leaves the activity and returns to the fragments, updating all the information about them.