

Design Document

2465008

Nicholas Isherwood

WSOA3003A

Turn Based RPG Game

Genre and subgenre analysis

RPGs

A role playing game or RPG is a game where players “play” the role of a character in a fictional setting either directly through full control of the character or partial control like the ability to make all major decisions in the narrative for the character giving the player agency over the character's development and decision making. The primary element of all RPGs are story and setting where players engage and interact with the world through their characters. Progression also plays a large role in RPGs through the ability to improve your character throughout the game by increasing their skills, equipment or level. Many RPGs feature combat systems which allow for further in depth interaction with the world and is where much of the game takes place as a part of the storytelling process of an RPG game. Exploration is also a key element in many RPGs as it allows the player to discover new regions, find hidden items and learn about the setting in a more personal and meaningful way as the player discovers these things for themselves and are not just told to them.

Turn based Games

Turned based games are games in which players take turns taking actions. In the context of a single player turn based game this means the player will be taking turns against an AI. Examples of turn based games are games like Civilization VI, XCOM 2 and Darkest Dungeon.

My Game

My game is a 2D turn based RPG which is set in a post apocalyptic world that was devastated by nuclear war. Post Apocalyptic RPGs are games set in a world after a catastrophic event where the world is left in ruins and the player must stay alive in an extremely hostile environment and face many challenges.

Inspirations

Fallout 4 is one of the games I took inspiration from as it is a good example of an RPG as it has a solid story and setting which also includes progression in the form of levelling and skills as well as the ability to get better equipment and upgrade it. Fallout 4 also features a large open world with many areas to explore filled with secrets, side quests and interesting characters. The game systems that stood out the most for me in Fallout 4 are the dialogue system, the inventory system and open world as I feel that these systems help ground the game as part of an adventure RPG. The core systems and mechanisms that ground Fallout 4 as part of this genre include a large open world with multiple quests, a skill and levelling system, crafting, and the ability to make moral choices that affect the story and relationships with other characters. The dialogue system allows the player to interact with NPCs in a variety of ways which are more meaningful than linear dialogue with characters. This is because through the implementation of decision making in the dialogue system, dialogue becomes an element of gameplay and not just a part of the storytelling process but a tool in the storytelling process. This system also allows for the player to project their personality on their character making their character and their interaction with the world more meaningful.

Pokemon is another game or series of games that I took inspiration from. Pokemon games are also RPGs but they fall under the subgenre of a monster collecting RPG. In this type of game the player collects and trains Pokemon in order to battle other trainers and become the best trainer in the region. The core mechanics that ground Pokemon as part of this subgenre include catching and training Pokemon, turn based battles, exploration, interaction with characters and a storyline. Primarily I took inspiration from Pokemon's turn based combat system as I think that would be a perfect fit in my game.

Hypothesis / Interrogation / Design Goal

The goal of this Post-Apocalyptic RPG game is to capture the essence of progression through better equipment, meaningful interaction with characters, and exploration of an open world map. I want the game to provide the player with a sense of agency and control over their character's development through the acquisition of new equipment and decision making.

The game should also encourage the player to engage with the characters they meet, through well-written dialogue and character development. The game should provide a sense of exploration and discovery as the player navigates through an open world map, encountering challenges and obstacles along the way. By focusing on these elements I aim to create a satisfying and rewarding experience for the player encouraging them to invest in their character's progression and the exploration of the game world.

The game should provide a sense of accomplishment as the player overcomes challenges and acquires new equipment and is able to defeat enemies more easily. Additionally, meaningful interactions with characters and the game world should provide a sense of immersion and investment in the game's story and world.

Design Notes & Process

Storyline and setting

The game is set in a post-apocalyptic world devastated by a nuclear war, where the player takes control of a lone survivor who wakes up in a building after breaking into it for shelter the night before. The player then has to fight a mutant wandering the halls of this building. The player then stumbles upon a scientist who is working on a cure for radiation sickness. The Scientist needs the player's help to collect a rare ingredient to complete the cure, and the player sets out on a dangerous mission through the wasteland to find it. Throughout the game the player navigates through the wasteland, fights off mutated creatures and raiders, and interacts with different characters. The objective of the game is to collect the rare ingredient needed to complete the cure for radiation sickness and help the scientists create the cure. Once the player returns with the rare ingredient, the player is hailed as a hero for finding the cure and bringing hope back to humanity or the player can choose not to give the cure to the scientist, dooming humanity.

UI

For my user interface I want to go with a simple design which provides all the information needed without the user having to think too much.

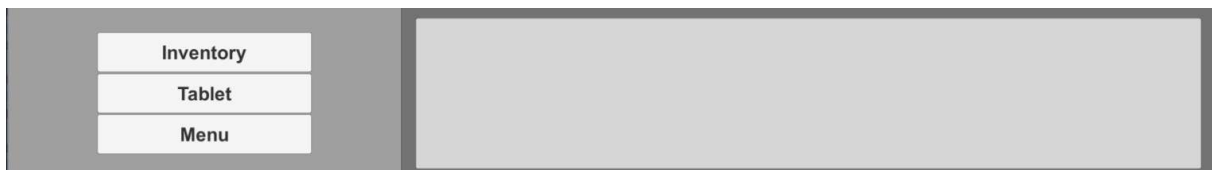
I want to split my UI into different interfaces:

- Standard gameplay UI
- Dialogue
- Combat
- Pause menu
- Inventory
- Quest tracker
- Minimap

I intend to make the UI simple and universal with a panel located at the bottom of the screen which will have a text log that will tell the player information about what is currently taking place in the game. Additionally I want to have buttons on this panel so that the player can access other UI elements. These buttons will be the inventory button used to open up the inventory UI, the quest tracker button used to check the player current mission and get additional information about it and finally a pause button which will bring up the pause menu UI.



Example of what I would like my bottom panel to look like with the text log on the right and the three buttons on the left.



Final in game bottom panel. I made the panel slightly smaller so that it does not take up too much screen space and get in the way of the player's view. I decided to rename the quest tracker to tablet as it fits more in the theme of the game.

Dialogue

For my game, I am planning to implement a dialogue system that will be triggered when a player interacts with a talkable NPC resulting in the normal game UI being hidden and the dialogue UI being displayed. The dialogue UI will be designed to resemble the normal game UI but with some key differences. The dialogue UI will have a long panel at the bottom of the screen that will contain a log text box on the left side. This log text box will display the name of the character the player is talking to, as well as the dialogue that the character is saying. On the right side of the panel, there will be three buttons that will represent the dialogue options available to the player. These options will give the player a choice in what to say or how to respond to the character. Depending on the player's choices, the narrative of the game may move forward in different ways or the player may be able to uncover additional information from the character. Overall, I believe that this dialogue system will provide an engaging and interactive way for the player to interact with NPCs in the game and shape the narrative of the game through their choices and interactions.

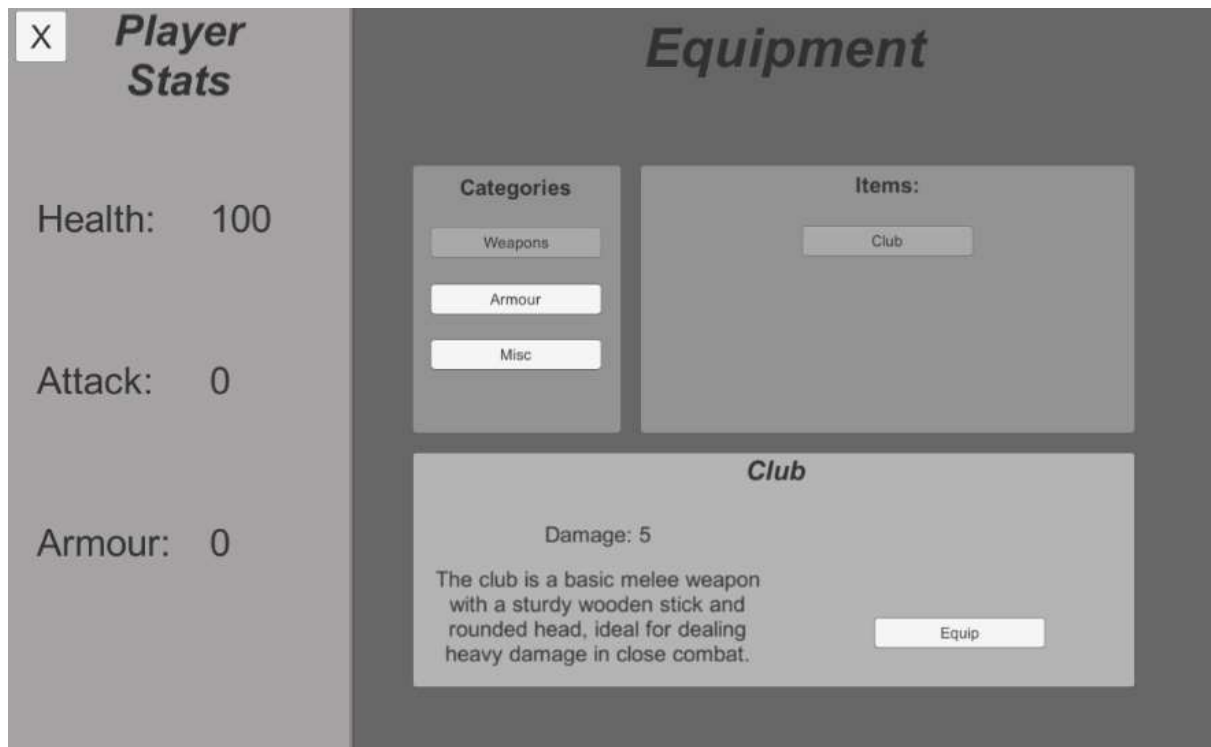


Example of what I will make the Dialogue UI look like with the text log on the left and the players three dialogue choices on the right.

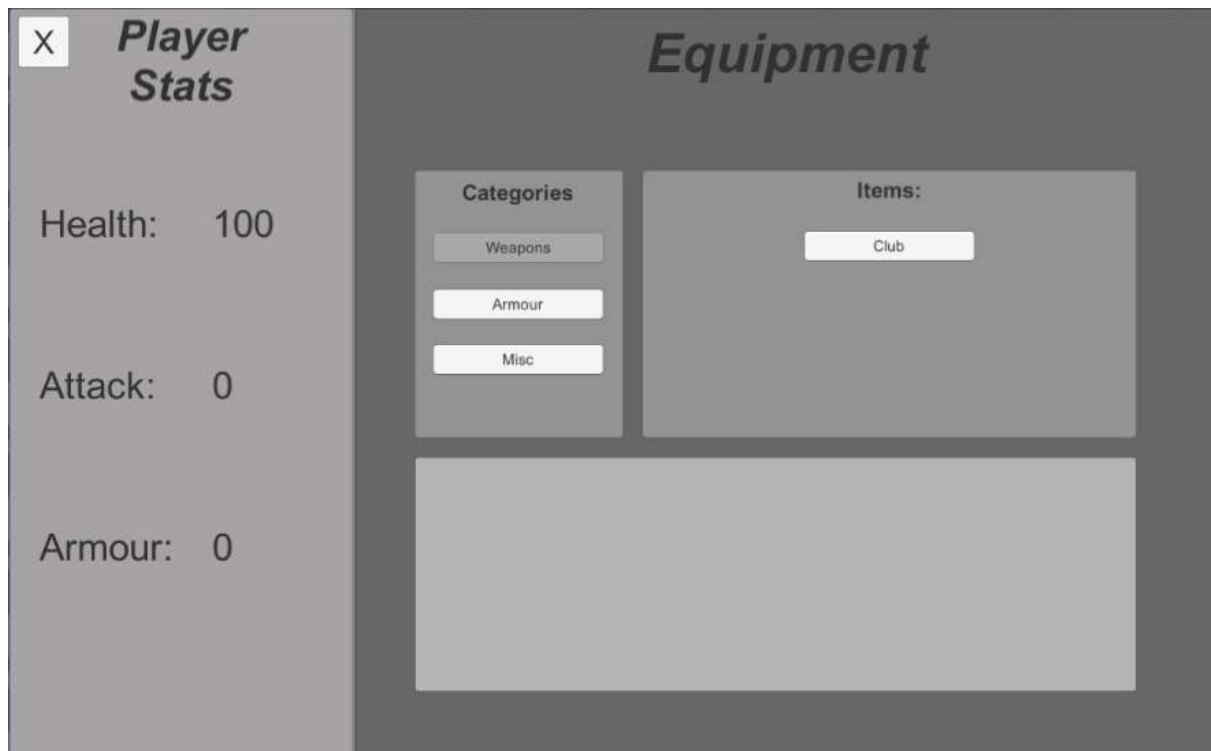
Throughout the process of developing the game I decided to only have two characters that the player can speak to. One of these characters will be a quest giver and the other will be an antagonist that confronts the player.

Inventory

The inventory panel in my game consists of several different elements. Firstly in the top left is a button to close the inventory UI. On the left side of the UI the player's stats are displayed on a horizontal panel including their current health, attack strength, and armour. This allows the player to keep track of their character's status throughout the game. On the right side of the inventory UI there are three separate panels. Two of these panels are displayed next to each other and are used to navigate through the different item categories. The categories panel on the left side of the screen has three buttons that represent the different item categories: weapons, armour, and misc. When a player clicks on one of these buttons the respective items will be displayed in a list on the items panel on the right side of the screen. When a player clicks on an item in the items panel, the information for that item will be displayed in the info panel underneath. The info panel displays the item's name, its damage or armour value, and a description of the item. In addition, there is a button on the info panel that allows the player to equip or use the item if they are able to. My intention is for this inventory panel to provide a simple and intuitive way for players to manage their items and equipment. By displaying the player's stats and allowing them to navigate through different item categories the inventory panel helps players stay organised and prepared for the challenges they will face.



In game Inventory panel displaying the information for the club weapon.



In game Inventory panel before selecting the club weapon.

Combat

Combat is initiated when the player gets too close to an enemy. Once this happens, the normal user interface is hidden and replaced with the combat user interface. The combat UI features a long panel at the bottom of the screen which is similar to the dialogue and normal game UI. This panel contains a text log box on the right which displays all information about what is going on during that turn including damage given and taken, dodging attempts, and successful dodges. The panel also includes four buttons on the left: attack, dodge, heal, and flee. In the top left corner of the screen, the player's health is displayed with a health bar and text showing their current health out of 100. Similarly, the top right corner of the screen displays the enemy's health, name, and health bar.

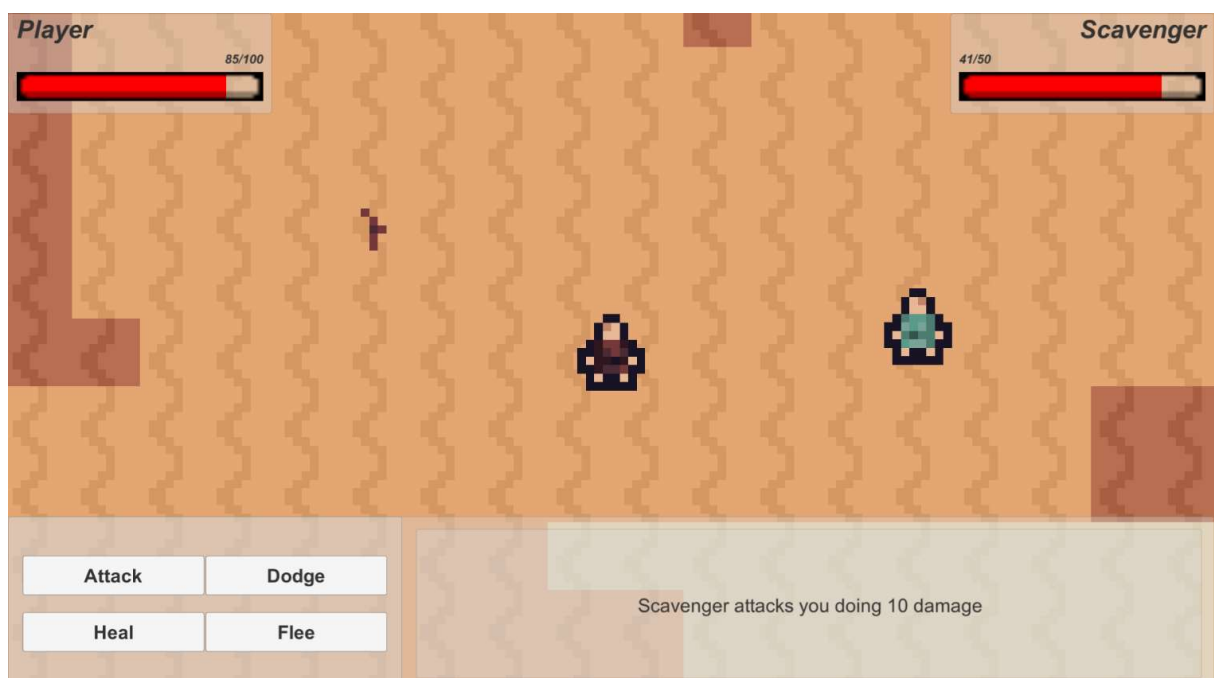
Combat follows a turn-based system, where the player and enemy take turns taking actions, with each turn only having one single action. The player always gets the first turn. To calculate damage, the player's attack value is subtracted from the enemy's armour value, along with a small random modifier to simulate the unpredictable nature of combat in an attempt to make it seem less linear. When the player or enemy tries to dodge an attack they will have a $\frac{1}{3}$ chance of success. Healing uses bandages from the player's inventory but this uses up a turn and allows the enemy to attack while the player is healing. Healing restores 20 health points. If the player tries to flee they have a $\frac{1}{5}$ chance of success. This is intentionally difficult as once engaged in combat the enemy will pursue the player and try their best to prevent their escape. All the panels in the combat UI are partially transparent as I noticed during playtesting that sometimes enemies will be hidden from the players view and

so to allow players to see enemies that may be hidden underneath the UI I made it translucent.

I intend for this combat system to be designed to be engaging, challenging, and strategic. With turn-based combat, the player must carefully consider their actions and weigh the risks of each move, adding an extra layer of depth to the game's combat mechanics.



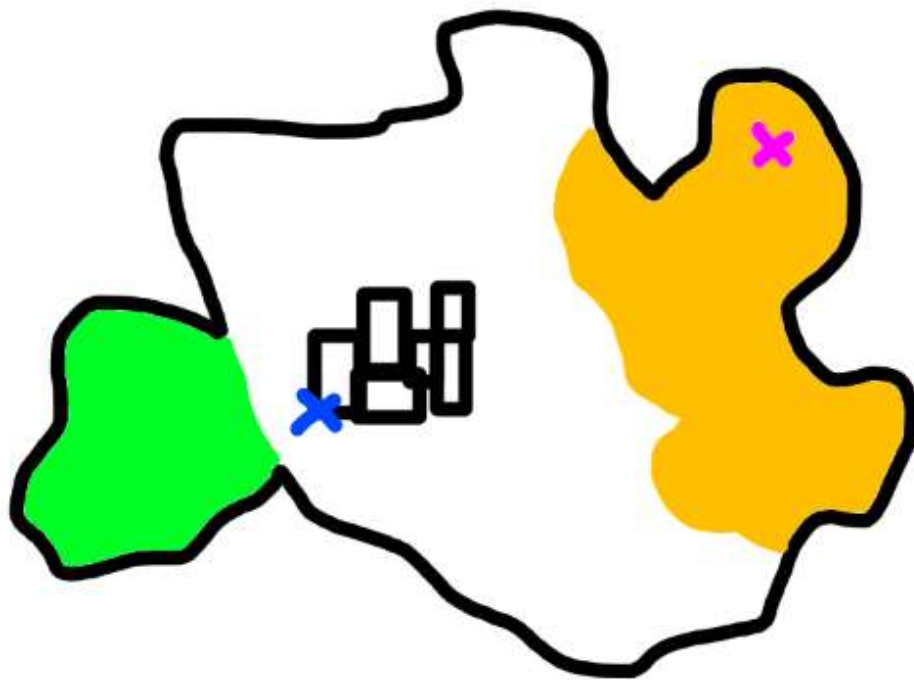
What I plan on having my Combat UI look like.



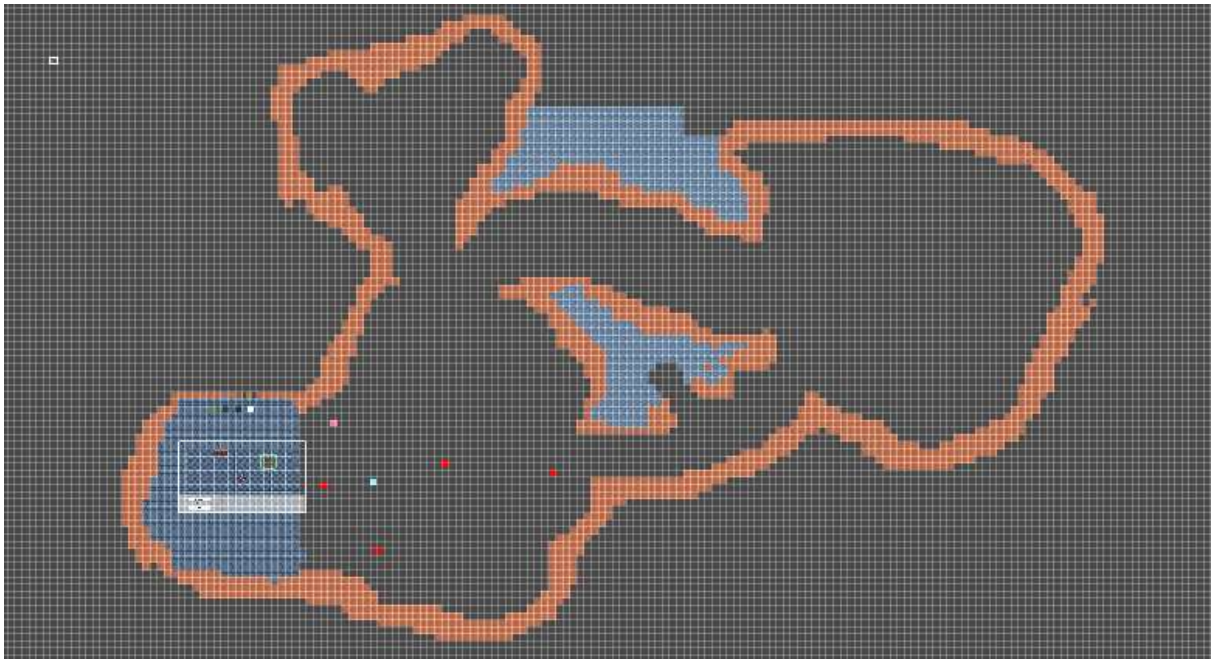
In game screenshot of the combat UI.

Map and minimap

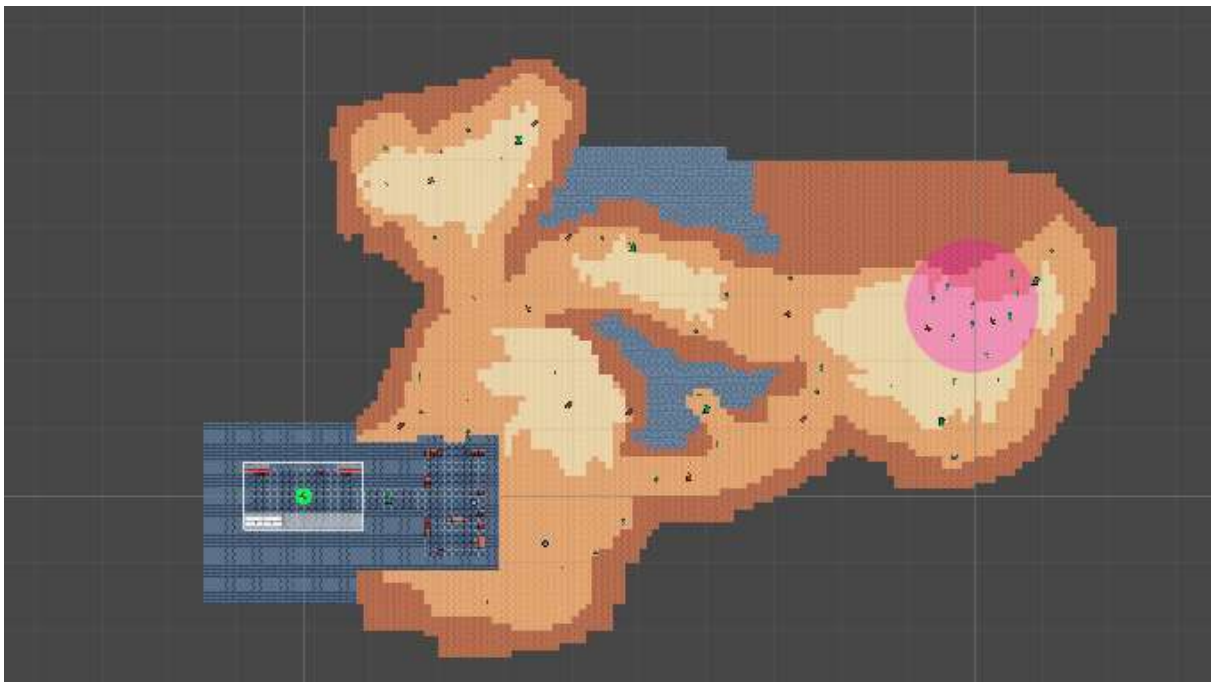
Map



Here is my first rough iteration of my map. The blocks in the centre represent the city in which the player starts and finds the scientist represented by a blue cross. The area to the right in yellow represents the desert and the green area to the left represents a radioactive wasteland. The pink cross represents the rare ingredient the player has to find. It kind of looks like Ireland's flag.



Here is my initial in game iteration of the map. I downscaled it intensely as I realised I was overdoing it a bit with the initial concept. In this iteration I removed the city and replaced it with a building on the left. Outside the building is the desert split into three main sectors.



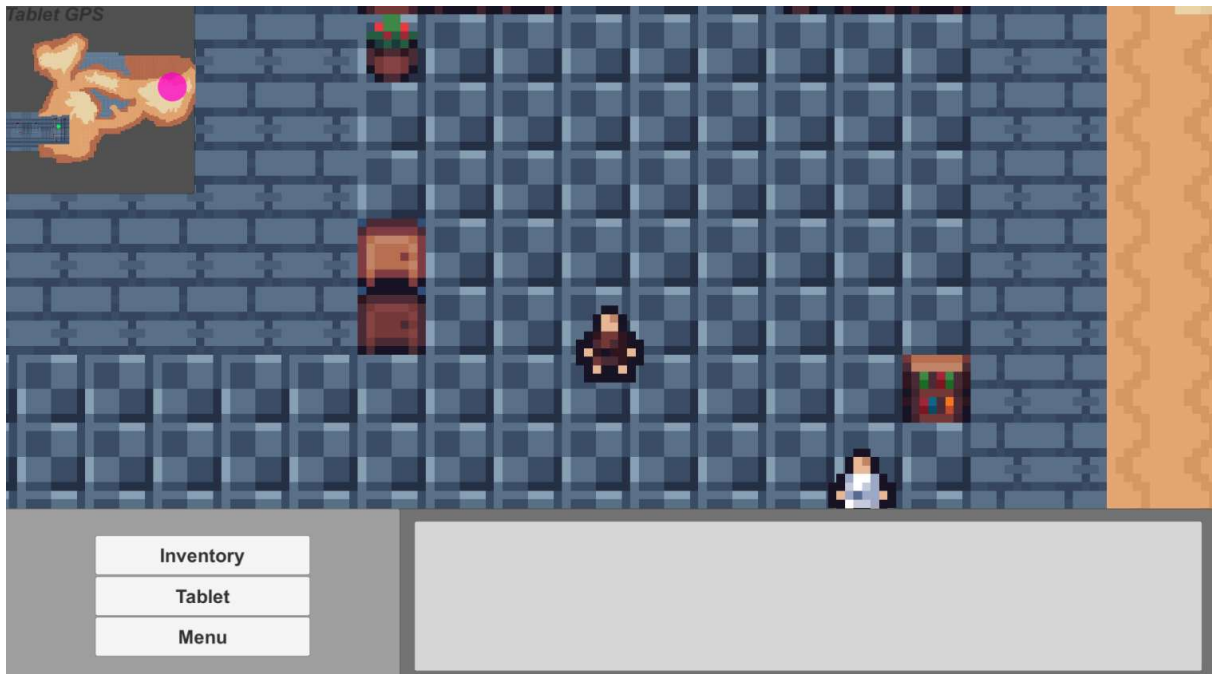
This is my final iteration of the world map with slight improvements to the building in the bottom left and more painting of the desert. The pink circle is the area where the rare ingredient is found. The map is scattered with items, objects and enemies to make it feel more alive and provide the player with challenges whilst on their mission to find the rare ingredient.

Minimap

The minimap of my game is essentially a small, simplified version of the game world that shows the player's location in relation to their surrounding environment. This allows the player to easily navigate and orient themselves within the game world as well as quickly locate important landmarks and points of interest. The minimap will also display markers for active quests allowing the player to easily track their progress and stay on task. These markers may appear as icons on the minimap. The minimap is a useful tool for players to stay oriented and focused while exploring the game world and can enhance the overall gameplay experience.



In game minimap



In game screenshot showing the normal game UI and minimap

Art

Initially I wanted to create my own art but as the deadline for the assignment approached I decided it would be best to use free tilemaps and sprites from various different sources. The art of this game is very important to achieve my design goal of creating meaningful interaction with characters, and immersing the player in the setting and open world map.

Pixel art wasteland asset package by CodeManu:



I used this tileset and character for my game however I slightly modified the character in order to use them for different characters in my game. This helps create more unique characters in my open world game.

My modified characters from left to right: Scientist, scavenger, raider and mutant.

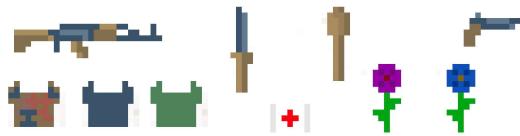


2D Pixel weapons by Silverm:



For these sprites I only needed the pistol and the rifle however I still required more sprites for other items in my game. To work around this I quickly used Krita once again to modify and create my own sprites building upon the already existing ones.

These are my modified sprites along with the sprites I created for my items in the game including the knife, club, scrap chestplate, tactical vest, combat armour, bandage and flowers.



Walkthrough

How to Play

Use WASD to move and E to interact with items and characters. Use the mouse to navigate through the UI and select buttons.

Walkthrough

- The player starts in a room with a club weapon nearby.
- The player must pick up and equip the club using the inventory system and fight the mutant in the hallway.
- Once the mutant is defeated the player makes their way down the hallway and stumbles upon the lead scientist.
- The player must then talk to the scientist and the player will receive their mission as well as a knife and two bandages.
- Then they must equip the knife using the inventory system.
- Make their way to the large flashing pink circle on the minimap which is the location of the rare flower.
- Fight any enemies they encounter and collect loot from them improving your equipment.
- The player must choose their battles carefully at first as some enemies will be quite difficult to fight with the low tier equipment the player currently has.
- When they reach the rare flower, they will have to fight off the raiders nearby and pick it up.
- The player is then informed via the log text that their mission has been updated and that they should check their tablet for more info.
- The player is to return to the lead scientist with the rare flower. The lead scientist's location is marked with a small flashing pink circle on the minimap.
- A small blue flashing circle is also displayed on the minimap and if the player chooses to check that out they will be confronted by a hostile scientist.
- Once the player returns to the lead scientist they can choose to give the flower or refuse to give it up causing the player to fight the lead scientist.
- If the player kills the scientist they lose the game.
- If the player gives the rare flower to the scientist they win the game.

Reflection

When I first started working on my post-apocalyptic RPG game I had a clear goal in mind. I wanted to create a game that captures the essence of progression through the acquisition of better equipment, meaningful interaction with characters, and exploration of an open world map. I wanted the game to provide players with a sense of agency and control over their character's development, while also encouraging them to engage with the characters they meet and the game world they explore.

I took inspiration from other RPGs like Fallout 4 and Pokemon in order to achieve this. Fallout 4's dialogue system and inventory management stood out to me as important game systems that could make my game more immersive and engaging. The dialogue system provides an opportunity to interact with NPCs in a meaningful way which allows the player to project their personality onto their character and make their interactions with the world more meaningful. Pokemon's turn-based combat system provided a perfect fit for my game as I wanted the combat to be tactical and strategic. With these mechanics in mind, I started designing my game. I focused on creating a compelling storyline and setting that would immerse the player in a post-apocalyptic world full of danger and discovery.

As I worked on designing the game, I found myself constantly testing and refining my ideas. I experimented with different dialogue options trying to find the right balance between giving players agency and maintaining a coherent story which is simple enough for my prototype game. I feel like this system could still be improved upon more but as a game designer I recognize that this is always the case with any game as there is always more you can do to improve the systems you are working on by making use of the iterative process. I also spent a lot of time tweaking the combat system trying to make it engaging and strategic while still easy to understand. Throughout this assignment I learned a lot about game design and about myself as a designer. I discovered that I enjoy the process of world-building and creating interesting characters but that I struggle with balancing the game out and integrating my systems together. However I do feel that I was successful in my design goals as this game is only a prototype after all. I also learned the importance of playtesting and iteration, as many of my initial ideas turned out to be impractical or uninteresting once I actually started implementing them and so I had to improve upon them.

Looking back on my process, I feel proud of what I've accomplished. While there are certainly areas where my game could be improved I feel that I've created a world and story that are engaging and meaningful. I hope that I have created an enjoyable experience allowing players to explore this world and interact with its characters, and that they will come away from the experience feeling a sense of accomplishment and satisfaction.

References

Sprites and Tilemaps used:

Pixel art wasteland asset package by CodeManu,
<https://codemanu.itch.io/pixel-art-wasteland-asset-pack>

2D Pixel weapons by Silverm,
<https://silverm.itch.io/2d-pixel-weapons>

Health Bar sprite by Brackeys,
<https://github.com/Brackeys/Health-Bar>