

CO4015 MComp Computer Science Project
Plan

Android RPG

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The Aims of the Project:

Primarily, the overall aim of the project is to build an 'Open World' mobile RPG on the Unity Engine for Android. The goal can be broken into smaller aims that need to be achieved in order for the project to be a success. These aims are:

1. Build an open environment that can be traversed by the players avatar, this will be the environment that the game and all interaction will take place. Research into World Design and level Design will be useful for this aim
2. Create a turn based combat instance where all game combat will take place, as this will create a clear separation between the 2 primary elements of the project, exploration and combat. This will allow more focus in terms of UI and code refinement for both section of the game.
3. Create a Smart Game AI, that will try to defend or minimise lost against moves that the player is able to do, by 'predicting' what they do, as well as try to counter attack in a way that would make the player lose. This could be aided by research into Game theory as well as theory behind past Game AIs.
4. Create a easy to use and navigate UI for both combat and exploration, that displays only useful components to the player, while keeping less frequent components behind fewer and more meaningful elements (menus). Research into HCI, UI Design and Blender modeling will help greatly to achieve this goal.
5. Create Systems that will help keep the player invested and attention on the game. This will help to ensure that the player will be interested in playing the game. Research into HCI will be useful here, as I will need to research popular game traits and features that keep the player interested.

Specifications:

Functional Specifications:

World Navigation: As a Player I must ...

- Be able to move my avatar when moving the on screen analog stick, so that my I can move my avatar through the game world
- Be able to swipe the screen in a certain direction and have the camera move in that direction, so that I can look around my environment.
- Be able to see a interact button appear when I am next to an Interactable NPC, so that I can talk and interact with them.
- Be able to see a visible enemy in the world, so that I know when enemies are present and can decide how to deal with them.

Combat System: As a Player I must ...

- Be able to see that I have been transitioned into a battle instance when I engage an enemy, so that I know that I am in an active battle with an enemy.
- Be able to see how health bar gauge with text numbers, so that I am always aware of how much health my characters have remaining.
- Be able to see how much magic points the characters have remaining with text number, so I have a visual and textual indication of how much they have.
- Be able to see the enemies health bar, so that I have a rough idea of the percentage of health they have remaining.

Dialogue System: As a Player I must ...

- Be able to see a textbox appear when I click on the Interact button when next to an NPC, so that I know that I have engaged in dialogue with the NPC.
- Be able to see what the speaker is saying in text within the dialogue box, so that I am able to read what the speaker is saying and understand.
- Be able to tap on the dialogue box, so that I can advance in the dialogue, so that I am able to move the conversation and make progress.
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Merchant System: As a Player I must ...

- Be able to identify a merchant by the special merchant icon next to them, so I know exactly who the merchant is and interact with the correct NPC.