

CA2 FPS Report

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Game Design:

Cracked Dimensions is a simple game where the player is dropped into a low poly landscape with a bow and a knife to defend themselves.

The main enemies of the game are goblins which are first encountered when crossing the levels bridge.

The main mechanics of the game are shooting arrows and using the dagger when ammo runs out, while getting health back from potions.

The control scheme for the game are the WASD keys for linear movement with jump being the spacebar. Shift is also used to enable the sprint animation.

Technical:

The hardware used to develop the game was a college and home PC used by exporting and importing files with a USB as GitHub proved unreliable to use for such big files.

The software that was used to create this game was the Unity engine along with various assets taken from the Unity Asset Store.

Development:

The game prototype was implemented by first creating the landscape the player would be exploring, this was done by using an asset pack which allowed for the construction of a 3 by 3 low poly landscape which fit together perfectly with the overall aesthetic.

Next the player was created using an asset from Mixamo along with animations. This in combination with asset store low poly weapons and created scripts made up the player model.

Lastly the enemies and UI was implemented with the enemies proving to be very difficult to implement due to various issues such as non-standard terrain which led to time consuming bug-fixing. The UI proved simple as it consists of a health meter and ammo count.

Testing:

Testing was continuous throughout the development of the game as the Unity editor allows you to play the game after each change is made meaning bugs were picked up on clearly and easily.

Coding:

- First error was when the starter menu would not load which was fixed when an OnClick function was added.
- Shaders for level 1 would not load or render correctly when being built from the menu, this was fixed by pre generating lighting in the render menu.
- Menu screen was not an accurate representation of the built game as there would be empty space where UI had been, this was fixed by accounting for the space and adequately enlarging the assets.
- Mixamo models downloaded without textures included, unable to fix as it seems to be a widespread issue from the site as gleaned from the forums.
- Navmesh could not be blanket applied to terrain as it was not consistently flat, this was fixed by using pro-builder planes with a nav-mesh on where the enemies are intended to spawn which are then made invisible leaving behind the mesh.

User Feedback:

Interesting concept for gameplay although end result is lacking in certain mechanics. Enemy mechanics are largely missing and game lacks the immersion of a fleshed out application.

Reflection:

Many basic mechanics were achieved however the workload was too much for one person and should have been divided between 2 as it would mean an easier process bug-fixing and managing expectations. Overall vision was too grand and expansive which meant some areas of the game were left underdeveloped. I learnt to start with more basic ideas and get simple mechanics implemented before trying to add more complicated and expansive features to the game. Greater understanding of the enemy systems would also be needed.