Project Definition Document

Computer Science with Games Technology

First-Person Shooter implementing Key Game Design Principles

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*\_insert consultant name\_*

The project was proposed by myself

Outline of interests?

Word count = \_\_\_

Problem to be solved:

For my project, I want to develop a first-person shooter game that will incorporate key game design principles. Alongside the game, I want to create a short paper going into detail about each principle, addressing topics such as why is the principle important, good and bad examples of the principle in popular games, how a game designer could implement it into their game and how I have implemented it into my game.

Some of the principles I will cover include Challenge, Motivation, Flow, Feedback, Reward and Punishment.

The existing knowledge about game design …. Gbfdsyhuavduyshafvbduyhsavfuydhsagfvuyhdgafy

What principles do I like in games and what games?

Principles I think are missing from certain games?

Project Objectives:

Main Objective:

This game shall be a well-rounded First-person shooter incorporating at least 1 good example of each key game design principle.

Smaller objective:

This project shall produce a write-up of at least 10 game design principles.

Game-Specific Objectives:

Objectives for Player:

* The player should be able to walk, run, jump and crouch
* The player should be able to take damage by being hit by an enemy
* The player should be able to take fall damage
* The player should be able to shoot a variety of guns
* The player should be able to pick up guns
* The player should be able to use throwables
* The player should be able to utilise a weapon wheel
* The player should be able to pick up more ammo
* The player should slow down temporarily after taking damage
* The player should be able to aim down sights with the gun

Objectives for Map Design:

* The map should have 3 traversable buildings
* The map should have a 4th building, inaccessible but occupied by enemy snipers
* The map should loot chests
* The map should have 4 different types of enemies including the main boss
* The map should have at least 2 hidden secrets, rewarding players who explore

Objectives for Enemies:

* There should be 4 types of enemies
* The small enemy should be easy to kill, unintelligent and utilise small weapons
* The medium enemy should have the same health as the player, should be slower than the player, and try to use cover occasionally
* The strong enemy should have more health than the player, should be quick, should be able to use a wide range of weapons and should be intelligent and always use cover
* The boss should have a range of attacks including…fdbrsyuafgvods, the boss should have 2000 health and should get more aggressive the lower its health gets

Objectives for Progression:

* The player should receive xp for every kill
* The player should receive xp for every chest opened
* The player should potentially level up 5 times
* The player would level up based on xp earned
* The player would receive unlocks after every level
* There should be a visual to inform the player they have levelled up
* There should be an audio queue to inform the player they have levelled up

Objectives for Visuals:

* There should be a visual hitmaker when the player shoots an enemy
* There should be a visible difference in the hitmaker when the player hits a headshot
* There should be a visual displayed when an enemy fires their weapon
* There should be a

Objectives for Loot:

* There should be a chance of ammo being dropped when an enemy dies
* There should be a chance of a weapon being dropped when an enemy dies
* There should be chests around the map for the player to find and loot
* The chests should have drop xp and some ammo as standard
* The chests should drop additional items such as health packs or ammo refills occasionally on chance

Objectives for HUD:

* The HUD should display the players level
* The Hud should display the ammo of the current gun
* The HUD should display a mini-map of where the player is
* The HUD should display a compass
* The HUD should display a crosshair for the player gun, the crosshair should change based on the gun
* The HUD should disappear when the player aims down sights with the gun

Objectives for Audio:

* The music should change with each building and fit the theme of the building
* There should be a sound effect for each gun firing
* There should be a sound effect for hitmakers
* There should be a slightly different hitmaker sound when a player hits a headshot
* There should be an audio queue when the player takes damage
* There should be spontaneous noise from the enemies as if they’re talking
* The player character should have voice clips to help the player navigate the world and understand the story
* There should be footstep audio for the player and enemies
* The footstep audio should be silenced if the player is crouching

Objectives for the overall game?

* The game should checkpoint the player after completing every floor in a building
* The game should revert to these checkpoints when a player dies
* The game should be able to be saved by a player
* The game should be able to record high scores based on how much xp the player earned and store it in a table
* The game should be able to record the fastest times players completed the game and store that in a table
* The game should be able to be paused at any time
* The game should have achievements that the player can unlock through completing things in-game
* The game should display the set of controls to the player

Build approach:

40% build:

Build a fully functioning game in the Unity engine.

60% build:

Build a very well-rounded and enjoyable game incoporating most of the game design principles

80% build:

Incoporate at least 10-15 game design principles and build a the first few levels of an extremely enjoyable game

Plan:

Objectives for base game:

Define what the game will be about and what it will look like

Create a player and implement controls and animations to the player

Create the world around the player split into 3 distinct sections. Open world?

Each section should be designed to offer a unique playing experience to allow for a variety of design principles to be displayed

The first section should display good design pricniples for :

* Fgbvdsyh
* Dfvjsghaui
* Fdshuafh

The second section ..bngrfuid

The write up for the different design pricniples should be completed alongside implementation of each specific principle