Uber-Casual Game Concept and Plan

Game Concept Development

Define the Idea:

Similar to a famous arcade game, the player will jump vertically from platform to platform trying to reach a high score based on height reached.

Identify Key Features:

Jumping from platform to platform, with moving platforms as well as collectables that shift the platforms around. The platforms will be randomly generated and stacked vertically as the player progresses. There will be different levels/stages with themes, and a red bar that approaches the player that resets the stage's progress if it catches up.

Art Style and Assets:

The overall style will be minimalistic, mostly compromising of basic shapes. Collectables, platforms, and the player character will be assembled in Houdini and put into the game. Each platform will have a lengthy list of shapes they can randomly choose from, mostly rectangular in shape. The player could be a basic ball of a sprite, squashing and stretching with jumping and landing on each platform.

Technical Planning

Scriptable Objects:

The high scores of the player can be stored into scriptable objects to retain the highest vertical point of the player. Another SO that could be used would be to keep track of the randomizations of the platform layouts, possibly creating each seed for each section of platforms. If possible, a powerup that allows for a double-jump could be scattered throughout the game to ensure progress is possible in spite of some of the random layouts that would otherwise block the player.

Core Systems:

The GameAction script will be primarily used to establish when the player crosses a height threshold to create new blocks of platforms; taking the player's Y-position and keeping track of the last block of platforms that was placed, the GameActionHandler would then place more platforms along the player's vertical path.

Level Design:

A vertical path of platforms, extending procedurally as the player progresses though the level. The game will hopefully have two play models: either infinite with a scrolling, repeating background or a major stage mode with different color themes.

Development Timeline

Break Down Tasks:

Week 2: Basic performance and concept

Week 4: Updated assets and themes

Week 6: Procedural placement of platforms

Week 8: Initial stages (5 stages)

Week 10: Mobile controls and optimization

Week 12: Finalization and publication

Tools and Resources:

Platform and Bar assets can be created in Houdini, as well as the blocks of platforms. Array of platform designs can be created in Houdini and referenced. Player sphere can be created in Maya, as possible powerups can be created within the Unity Engine. All non-Houdini assets can be securely stored in a Git repository.