Project Charter

Business Purpose:

The purpose of our project is to create a game using the unity engine for the personal computer. The game we are creating will feature different mechanics and allow for different playstyles.

Project Roles / Responsibilities

Curtis Golden – Project planner

Will Stroeder- Project record keeper

Zachary Kasprzyk – Project Team Leader

We are all willing to work on the project and its development throughout all of its phases. Artwork, assets, voices and music might be commissioned.

Event Table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Event | Trigger | Source | Use Case # | Use Case | Response | Destination |
| Main Menu System | | | | | | |
| Player starts a new game | Player selects new game | Player | UCMMS01 | Start new game | Game scene is loaded | System |
| Player loads a game | Player selects load game | Player | UCMMS02 | Loads game | Load game menu is displayed | System |
| Player enters settings menu | Player selects settings | Player | UCMMS03 | Selects settings | Settings menu is displayed | System |
| Player quits game | Player selects Quit | Player | UCMMS04 | Selects quit | Game is exited | System |
| Load Menu | | | | | | |
| Player selects save file | Player selects save file | Player | UCLM01 | Player loads file | Game scene is loaded at a certain point | System |
| Player deletes file | Player selects delete next to file | Player | UCLM02 | Player deletes file | Save file is deleted | System |
| Player deletes all | Player selects delete all | Player | UCLM03 | Player deletes all files | All save files are deleted | System |
| Settings Menu | | | | | | |
| Player adjusts game audio | Player selects game audio option | Player | UCSM01 | Player changes game audio | Game audio volume is adjusted | System |
| Player adjusts game music audio | Player selects game music option | Player | UCSM02 | Player changes music audio | Game music audio is adjusted | System |
| Pause Menu | | | | | | |
| Player wants to resume play | Player selects resume option | Player | UCPM01 | Player chooses to resume game | Game scene continues to run | System |
| Player wants to save current game | Player selects save game option | Player | UCPM02 | Player chooses to save game | Current game state is written to file | System |
| Player wants to quit game | Player selects quit game option | Player | UCPM03 | Player chooses to quit game | Game prompts if player wants to save before quitting and quits | System |
| Game Scene | | | | | | |
| Player wants to move character | Player presses A and D keys to move left and right respectively | Player | UCGS01 | Player moves character | Game moves character in direction based on input | System |
| Player wants to jump | Player presses spacebar | Player | UCGS02 | Player jumps | Game moves character upward | System |
| Player wants to climb ladder | Player Presses W and S keys to move up and down respectively | Player | UCGS03 | Player Climbs Ladder | Game moves character up and down ladder based on input | System |
| Player wants to shoot gun | Player presses right mouse button | Player | UCGS04 | Player shoots gun | Game causes player to shoot in mouse direction | System |
| Player wants to use whip | Player presses the left mouse button | Player | UCGS05 | Player uses whip | Game causes player to use whip in direction of mouse | System |
| Player swings across gap | Player uses whip in direction of hook | Player | UCGS06 | Player swings | Game swings player across gap depending on side of gap player is on | System |
| Player wants to attack enemy | Player uses whip or gun and hits enemy | System | UCGS07 | Player attacks enemy | Game lowers enemy health if contact is made, and if enemy health is 0 removes enemy from screen | System |
| Player is hit by enemy | Player comes into contact with enemy sprite | System | UCGS08 | Player is hurt by enemy | Game lowers player health by 1 | System |
| Player dies | Player health reaches 0 | System | UCGS09 | Player dies | Game plays death animation and returns player to level start/checkpoint | System |
| Player collects coins/gems | Player comes into contact with coin/gem sprite | System | UCGS10 | Player get coin/gem | Game increases player coin count | System |
| Player collects 100 coins | Player coin total reaches 100 | System | UCGS11 | Player gets 100 coins | Game gives player additional life | System |
| Player reaches level end | Player reaches end of level | System | UCGS12 | Player finishes level | Game displays level complete text and loads next level scene | System |

Features List

Some of the features our product will have include; character customization, running, jumping, swinging, shooting, and treasure hunting. With these features we hope that the game will allow players to have an enjoyable experience. After all games are made for entertainment.

System Objectives:

Our team has a few different system objectives for this project. One of the main system objectives is that we are able to create a game that is smooth to play and has proper working functionality. To us this means there should be minimum amounts of lag and the character should be able to move fluently. The control scheme should be straightforward and the objectives should be apparent.

Project Critical Success Factors:

For this project to be considered a success from our team we would like the game to have the following features. The game is in a playable state, has polished functionality and runs as envisioned.

Preliminary Technical Architecture:

For this project our team will be using Unity. Unity is a game development platform used to create high quality 3D and 2D games. We plan to make our game as an application for a desktop computer or laptop.