COMP 3004B

#4 – System Architecture and Design

Team name: Apple Pie

Project name: Stone

Team member:

Chupeng Shen 101079598

Junren Jiang 100999408

Zac Zhuang 101068659

Xiannan Chen 100995076

Description

Video link: https://youtu.be/6q6xiE59jm8

As of April 4th, we have almost completed the production of the game body, and all the functions mentioned in the initial period except the map editor have been completed. For the known problems mentioned in the previous assignment, we have also fixed them. Now we can be sure that we have made an APP game that can normally run on the mobile phone.

This game is a straightforward small RPG game. The purpose of the player is to defeat all enemies on the current map by moving and attacking, enter the next level through the portal, and finally kill the boss to complete the game. The user interface provides real-time feedback on the player's personal information, map location, enemy status, and backpack. There are pickable props on the map for players to use. Sometimes, players can click the save button to save all current data to a local file, and press the load button to restore all states to the last saved state when the game is next opened.The only thing we haven't completed is the game's map editor. His data structure is too complicated; it is difficult for us to set up custom maps, enemies, and props space for players based on existing knowledge. In the development process, we made a clear division of labor for the production of various functional requirements. Although this allows us to complete personal tasks faster, it cannot be effectively combined together, resulting in the editor's development process.

Develop Log

Xiannan Chen 100995076

2020-1-20: Learn how to use Unity(For example how update(Unity provide) function works and the most useful component in Unity).
2020-1-27: Make movement button and add Stop function in playercontrol script, then using event trigger component handle touch control(character movement).
2020-2-03: Started watching inventory and animation tutorials and continuing familiar with Unity and C# language.
2020-2-10: Started making inventory system.
2020-2-17: Finish inventory, slot, bagslot and pickup script. And add these components to our player Game object.
2020-2-24: Make an item(apple item) and write apple_item script, which can increase player’s HP. And upgrade pickup script to make sure when player pick up a new item, this item will be placed in bag’s correct position.
2020-3-03: upgrade apple_item script, player can move apple_item in bag to quickslot(item only in quickslot can be used).
2020-3-10: Create a new game object, which is enemy. And write enemy script which let each enemy walk forward to character if their distance is small enough and the enemy’s speed is less than character. Thus, if the distance between one chasing enemy and character become larger than a number, this enemy will go back its original position. And enemy will attack character if they are really closed.
2020-3-17: Create a new game object, which is boss. Its script is very similar with enemy’s script. Just increase its speed and attack power. And make character’s attack button. Optimize the animation of movement, make the character can face correct direction when it stops moving.
2020-3-24: Make health system of enemies and boss. And add Takedamage and Die function to scripts of enemy and boss. Using event trigger component of attack button to handle the health of enemy and boss decrease correctly.
2020-3-27: Create a new game object, which is a summon bear can help character attack enemy and boss. Make a summon item, when player use this item, the bear will appear for seconds time and disappear. This bear cannot move but will attack nearby enemies.
2020-3-31:write Loadinventory function in playercontrol script. When player go next map, the character will keep the item in bag and quickslot at last map.

Zac Zhuang 101068659

2020-1-23: Getting started on GitHub, making branches and the main branch, learn how to pull, push and send merge pull request.
2020-1-30: Self studied how to use Unity, get familiar with functions that have been pre-implemented in Unity, such as rigid body 2d and collider 2d.
2020-2-6: Finished the basic map(level 0), applied the collider to both objects and player, camera now follows the player.
2020-2-13: Creating the first map (level 1), design the map route and map layout.
2020-2-20: Create player health bar and display, added anew script to save the health status of the player, setting the player health to integer.
2020-2-27: Edited map components and prefabs, setting collision boarder to the map and start on new map levels, created tile map to create convenient environment for later map background editing.
2020-3-5: Finished the second and third map's general design and plot the draft landscape.
2020-3-12: GitHub unable to merge to the main branch, pulled a new(latest) copy of the main branch, working on details of maps, changed the health point of player and enemies in to float in order as requested.
2020-3-19: Planning for D3, analyzing design patterns and diagrams, writing the MVC and composite design pattern analysis.
2020-3-26: Finished maps and finalized, creating and adding portal prefabs, adding a rigid body to the portals that when the player step on them, the portal will return a log in the console.
2020-4-2: APK package packed, based on Android 4.1(Jelly Bean), JDK 8, wrapping up.

Chupeng Shen 101079598

2020-1-30: Create basic player control script. Write the scripts for camera. It will follow player while playing.
2020-2-06: Finish camera script. Create player and some obstacle’s colliders. It will include the map edit.
2020-2-13: Make all buttons in main menu available.
2020-2-20: Create and set the loader button. It can read saved local data and then load it.
2020-2-27: Create pause menu and pause function. While pausing, all status will be stopped until resume the game.
2020-3-05: Inventory panel and it's pause function, open close button.
2020-3-12: Player object's saving file state and save for player
2020-3-19: Loading function and Bug fixing
2020-3-26: picture fixing
2020-4-02: Prepare for demo presentation PPT and video.

Junren Jiang 100999408
2020-1-28: Learn how to use GitHub Desktop and some basic introduction of Unity
2020-2-4: Create player model as idle and movement animations that will be used in the future
2020-2-11: Make connections between movement animation and movement command. Set different animations to different directions.
2020-2-18: Create buttons’ interface and their connections. They aim to make buttons available to port to specific scene.
2020-2-25: Draw an attack range. It will be used to set player’s attack system.
2020-3-3: Make an attack animation to player. At that time, player can press a key to attack. This action can let the player model load attack animation and take damage to enemies if they are in the attack range.
2020-3-10: Edit the deliverable #3. Focus on the architecture description.
2020-3-17: Connect the set attack button to attack scripts. It can trigger attack animation and range determination.
2020-3-24: Fixed some bugs of animation loads. Before that, the attack script cannot trigger health decrease.
2020-3-31: Fixed some bugs of movement buttons. Write deliverable #4. Collect all develop logs from partners.