CS4500 Bi-weekly

Group Report Github repository:(https: //github.com/nbailey583/Sen-Sem-Spring-2022-Group4)

I. Executive Summary of Contributions.

The first couple of days as a team we brainstormedw hatkind of game we were going to create. We took thetime to c ome up with mechanics, a smalls tory behind the game, maps, characters, and tools needed.W e all took time to learn Unity, Blenderand C#. We got somewhat of agr ip of our tools and then started to compartmentalize tackling parts of the game that needed to be worked on.

We came up with rough drafts of character designs, both the main characters and the enemies. Map ideas for the game were conceived and agreed upon. Due to limitations in learning Unity, we were onlya ble to create part of thefirst map. But we were a ble to generate a map and a character to place on the map to further test and implement the concept of movementin later updates for the project.

II. Individual Contributions:

Team MemberN ame: Erskine Denson
Task 1: Learning how Unity works and it 's interface

A. **Description:** I spent a few hours watching a few tutorials explaining whatU nity is and how it works. I learned that it isa game engine centered around game object s.Y ou can create objects and manipulatethem in a num ber of ways. You attach scriptst o them, move them, spawn/deswan them, etc.. I got a dec ent grasp on the different tools and interfaces in Unity. Learned howt he inspector works, the hierarchy, game view,s cene view, gameobjects, physics and otherelements bui lt into Unity.

B. **Code or artifacts produced:**None

C. **Git commit link(s):**N one

D. **Hours spent:**3

Task 2: Learning how to do a variety of differe nt things Unity

A. **Description:**This is where I spent m ost of my time.I w atched many tutorials on many different things thatyou can do in Unity. I le arned about player movement,collisions, rigid bodies, planes,terrain, scripts, eve nts, inspector fields,and many other t hings. I then spent a lot of time trying to apply those things in differentunity project sso I coul d get a better understanding. Unfortunately, Unity isa ve ry complex systemand I'm still not gr eat at some basic tasks.

B. **Code or artifacts:**None

C. **Git commit link(s):**N one

D. **Hours spent:** 15

Task 3: Miscellaneous

A. **Description:** This is ti me I spent on an assortmentof tasks that aren't w orth listing individually. Things like: group discussions, relearning Gits ince I haven't used it in a while, setting up unity, troubleshooting unity, and a few others mall task

B. **Code or artifacts:** None

C. **Git commit link(s):** N one

D. **Hours spent:** 3

Next cycle goals (at least 5 goals): Implement good player movement,implement projectil e firing, geta better unders tanding of map creation, learn howt o apply events better, and try to create better camera tracking.

Team MemberN ame: Razah Stewart

Task 1: Cre ate Demo Map

A. Description: Col laborated with David to create a map demo and use gameobjects. I also took a lotof time to l earn how to createa map without using a pre-built ma p. I am learning to apply C# to map building so that way the map can be personalized to the group. I do nothave anything "hi gh-level" to show. I learned how to apply sprites, and tilesont o the map that can create a small area to place objects on. The nexttime I will have a map l evel builtapplying C# and pac kages to the levels and then applying movements and objects to the map. I willhave a lot m ore to showi n the future when designing the levels given the knowledge that I have gained and continue to gain.

B. Code or artefacts produced (show only highlights or high-level functionality): I worked with David through discord. Hisscre enshotis w hat we produced together.

C. Git commit link(s) (None atthis point but will in the future)

D. Hoursspent : 8

Task 2: Learn Unity

A. Description: I spenta lot of ti me learning Unity so that I can then apply it to map building. I learned howt o apply and use packages and assets. I followed a good but of tutorials to try and learn differenttechniques and ne cessities to apply to building amap level . I understood that in general with unity that you can create objects and then apply functions to those objectst hat can makethe object sdo something or become something more than what it just is. Overall I learned Unity to apoint to where I can apply some of my knowledge to my task in map building.

B. Code or artefacts: (None at this point but willin the future)

C. Git commit link(s) (None atthis point but will in the future)

D. Hours spent : 17

Team MemberN ame: David Tan

Task 1: Creating a map level

A. Description: Used edi tor window to create amap level , and I also used gameobjects. Focused on creating hierarchy, and I focused on clutter, efficienc y, and positioning. Thiswas how I crea ted the demo map included below. I wanted to make sure that the position of the contentw asre lative. I am

designing and building the map for the game, Last Stand, and I will continue to work on the game. I am also working on ensuring the scalability of the map, and I will continue to do so as I continue to work on it. Right now, I have been working on coding the code to be used for the game map in C#, and I will continueto work on the code. I do not ha ve anything high-level functional at themoment due t o technical difficulties with connecting to github.

B. Code or artifacts produced (show only highlights or high-level functionality): Demo map and character below: Image 1
https://drive.google.com/file/d/14z30GCAPrz6z6woHkEhoutdw9eIqEVPU/view?usp=sharing

C. Git commit link(s): https://github.com/nbailey583/Sen-Sem-Spring-2022-Group4?fbclid=IwAR1_LAZ_8dXdnLbtxCLH8iZiFPSn0JKOm5M9ysM4hm1N4L-4Mm6ohwSDGqw

D. Hoursspent : 8 hours

Task 2: Creating objects in the map level

A. Description: Used editor window to create objects in the map level. I focused heavily on the Inspector aspect of the editor window. I also used gameobjects. I am focusing on creating a basic movement system for the character of our game by using the Transform.rotate method and transform.translate method which helps the character moves. I included the highlights of the basic movement system below.

B. Code or artifacts:

Highlightsof t he basic movement system: image 1
https://drive.google.com/file/d/14z30GCAPrz6z6woHkEhoutdw9eIqEVPU/view?usp=sharing

Image 2:
https://drive.google.com/file/d/10ohvC_lJsIZSJ_8KXCkZNCzxDL44fBwZ/view?usp=sharing

C. Git commit link(s): https://github.com/nbailey583/Sen-Sem-Spring-2022-Group4?fbclid=IwAR1_LAZ_8dXdnLbtxCLH8iZiFPSn0JKOm5M9ysM4hm1N4L-4Mm6ohwSDGqw

D. Hours spent : 8 hours

Team MemberN ame: RJPac e

Task 1:

A. Description:

B. Code or artefacts produced (show only highlights or high-level functionality):

C. Git commit link(s)

D. Hoursspent :

Task 2:

A. Description:

B. Code or artefacts:

C. Git commit link(s)

D. Hours spent : . . . ..

Team MemberN ame: Nathan Bailey

Task 1: Study of Dec ision Making in Unity and possibleimpleme ntation using A* for Nav Mesh

A. Description: W atched and reviewed Unity-hosted tutorial (videos only) of Decision Making that involved using a character navigation mesh/grid implemented using A* algorithm. Link: Artificial Intelligence for Beginners - Unity Learn

B. Code or artefacts produced (show only highlights or high-level functionality): None

C. Git commit link(s) None

D. Hoursspent : Approx. 19 hoursra nging from January 23 - February 3

Task 2: Managing GitHub and integration

A. Description: Attempted to ensurea smooth translat ion between development toolsused a nd GitHub for version controland content shari ng.

B. Code or artefacts: None

C. Git commit link(s) Merge pullrequest #9 from nbaile y583/nathan · nbailey583/Sen-Sem-Spring-2022-Group4@6e8c36f (github.com)

D. Hours spent : Approx. 3 hours, continuing

Next Cycle Goals:

1. Analysis of collision pointsi n maps used, as added.
2. Begin and complete hands-on portionsof t he Decision Making tutorial
3. Develop physics for playable character.
4. Design self-piloting shortestdistance(?) a lgorithm, preferably from scratch. (Is there something better than A*?)
5. Apply Nav Mesh to at least onemap.
6. Develop self-piloting NPC to a single pointon one map.

TotalH ours learning: 19 hours

TotalH ours programming: 3

TotalH ours artdesign: 0

Team MemberN ame: Edward Hayes

Task 1: Gam e Art/ Design

A. Description: c reated theevolving rough draft for the characte r (which will be theplayer), enemy/mob design (including early art for the bosst ype enemies), and weapon design (All are subject to change in future updates and tweaks to the project).

B. Code or artefacts produced (show only highlights or high-level functionality):

C. Git commit link(s) https://github.com/nbailey583/Sen-Sem-Spring-2022-Group4/blob/edwards_workspace/20220206_215054.jpg

https://github.com/nbailey583/Sen-Sem-Spring-2022-Group4/blob/edwards_workspace/20220206_221838.jpg

https://github.com/nbailey583/Sen-Sem-Spring-2022-Group4/blob/edwards_workspace/20220206_221856.jpg

D. Hoursspent : 5 hours drafting concept art (continuous in later cycles)

Task 2: Studying Software

A. Description: Spenttime le arning between Unity engine and Blender animation software
B. Code or artefacts: none (as of thisc ycle)
C. Git commit link(s) none (asof t his cycle)
D. Hours spent : 13 (watching and learning from tutorials form youtube and open online sources).

III. Future plans

As a group, describe what the plan is. This should not bea repeat of ea ch team member's individual goals, but rather a high-leveloverview of what all the goals combi ned will produce.

Within the next cycle, we intendto better understa nd the implementation of necessary tools to further develop our project. We planto provide charac ter/enemy movement in a point-to-point manner according to the layout of the playablearea/s. We hope to be able t o runa demo version of thegame to look for any glitches. In regards t o GitHub related mistakes, we hope to correctthese mishaps such as imprope r file import/export. To havean operationa l prototype in a sense of singular combat, intending to be able to run a demo version of the game to look forany glitches. As per the character design aspect, within the two week timeline we hopeto have a fully operational model to be controlled by the player.