

SCFG Assignment2 Documentation

Task 5 AA4 Video

https://www.youtube.com/watch?v=y_frrWISRSc&ab_channel=GianBartolo

(timestamps are on video)

Task 6 AA5

Vector3 utilises the x,y and z coordinates. As such, it can handle any positioning, both 2D and 3D. What Vector3.Distance does is takes two parameters (a,b), and returns the distance between those two positions. On the other hand, A* pathfinding utilises a grid, which can be a grid graph, point graph, etc. This grid is made up of nodes. Empty nodes are spaces in which an object can pass through. The obstacle layer prevents any object from passing. Then, an AI object is given the seeker, Allerp and destination setter components from the A* pathfinding library. This AI object is then given a target. In runtime, the A* pathfinding components work in tandem to calculate which path would be fastest by considering all available empty nodes and the distance in which the target is at.

Task 7 SE1

First, the username is stored in the PlayerPrefs value "username". What this does is save the inputfield value into a global variable that can then be accessed from all the scenes. Then, the seconds taken is also stored in the PlayerPrefs. This time in the value "score". Once the game starts, a users folder is created in the Assets folder. Every level, the game generates a text file with the username and then stores the seconds they took to complete the game. This is then displayed at the end screen.

The intention was to display an array list of users and their relative score. Then, compare it and list the 10 fastest high scores. Due to time constraints, this requirement was not achieved.

Task 9 SE3

Player Observations

The players were given the following explanation: “You have 3 levels of this snake game to finish. The objective is to eat at least 6 food particles. Once you reach the blue exit, you can go to the next level.”

Player 1:

- A) Couldn't grasp the concept of the game, most likely due to extreme lack of familiarity with games in general.
- B) Level1 was completed, but there was no completion satisfaction shown.
- C) Interest was lost by Level2.
- D) Level2 was slightly harder, but still not fun.
- E) Level3 could not be completed due to difficulty.

Player 2:

- F) Game concept was grasped as slow as Player1, level1 was completed.
- G) Level2 was still relatively easy. No satisfaction in completion shown.
- H) Level3 was slightly more entertaining to the player. They finished the game just in time before being caught by the enemy and narrowly dodging objects.

Player 3:

- I) Player3 was critical of the overall quality of the game.
- J) Player3 still found the game relatively entertaining despite the shortcomings, especially Level3.

Report:

The first common issue is the lack of properly functioning behaviours for the snake player and the enemy snake. This caused a lot of confusion as the explanation was that the game was about snakes, however- the foods absorbed to form the tail kept breaking which confused the player (Observations A,F,I). That bug must be diminished as a future improvement.

The next issue is the lack of satisfaction found in players (Observations B,G,C,D,I). In order to keep the player occupied and have more fun- more features should be added. Such as power ups, a more diverse level structure, different enemies, more environmental interactions, etc. It is very important to note that

Player1 even completely lost interest by Level2 (Observations B,C) yet decided to continue with testing the game for observation purposes. Otherwise, Player1 would have quit entirely.

A positive observation made is in Level3. The difficulty of the level was enough to rekindle the interest to play in Players 2 and 3. (Observations H,J). On the other hand, Player 1 found level 3 to be too difficult to be completed (Observation E). What this entails is that challenge is very important when making a game more fun to a player. On the other hand, for the much less technically informed audience- it is better to settle for a middle ground. In fact, a tutorial would've made the game much easier to grasp and make the players less confused. After all, a player would have much less fun if they're not familiar with what they're supposed to be doing.

In retrospect, the main aspects to be improved upon in the future would be the following. First, the game is to have a tutorial level accessed from the menu. This would give the player instructions on how to move, what the food particles do and an example of how the exit works that is found at the end of each level. Then, most importantly- the behaviours of the player snake and enemy snake are drastically improved. Tails are to be instantiated properly, movement using A* pathfinding is readjusted so that the enemy has better grasp on how to avoid obstacles and get to the player quicker without glitching out.

Finally, the game is to be overhauled entirely. Levels are to have different area layouts, different types of enemies are implemented. Power ups are to be added, etc. More sounds should be added aswell to diversify the audio a bit. A greater amount of testing will be an important part to prevent shortcomings noted of in this report with the help of observations.