Project 6 – The Fruit Hunter

CMPS 327

Due Date: Check on Moodle

In this project you will design a game in which the player collects fruits in the environment. The name of the character in this game is “Foo” and he is sick. The doctor has recommended him to eat lot of fruits to get the necessary nutrients for regaining his health. However, he must avoid eating junk food (pizza, burger, French fries etc.).

Requirements

1. Your game must use the 3D environment (2D is not allowed) and your environment should have a terrain, trees, grass, and water. There are no strict requirements about how your game environment should look like. Feel free to be creative here.

2. Your game environment should have multiple kinds of fruits and junk food items. You should be able to download models online for free (e.g. https://www.turbosquid.com/3d-model/fruit?max_price=0&min_price=0).

3. Each food item should have a different score associate with it. For the character “Foo” fruits are good but junk food items are bad. Eating fruit increases the health score and eating a junk food item decreases the health score. To begin with the health value is 100 and it can go over 100 as he collects fruits. If the health gets to zero the player dies and the game is over.

4. There is a special fruit as well called “Mega Fruit” which gives him temporary invincibility for some time and bonus points. If the player eats a bad fruit during the temporary invincibility then the score of the player would not decrease.

5. You game should display the current value of the health at the top of the game screen.

6. Your game must have a mini-map/radar which displays the fruits around the player. This map should display good and bad fruits with different colors.

7. Your game should have enemies (walking using a Navmesh on the terrain) and your player should be able to kill those enemies using some weapon. It is up to you how you implement that weapon. Killing each enemy gives health/bonus points. If the enemy collides with the player, the health goes down by a few points.

8. Your game must have sound effects. At least background music, fruit collection sounds for good and bad fruit, and weapon sounds should be present.

9. You game must have a particle system and it must be used for a purpose. A few examples include, enemy explosion when shot, weapon explosion, some effect when collecting mega-fruit, etc.

10. You need to design two different scenes, one with first person and one with third person controller.

11. Your game should have a start screen where one could select the first person or thirds person mode to play the game. Your game should also have an end screen as well as game over screen. Your game over screen should have an option to go back to the start screen.

12. The rest of the game is up to you. I am looking for creativity beyond the listed requirements. It should be fun to play. Extra credit points will be given for those students who go beyond these specifications.

Deliverables

1. You must submit your code on GitHub. By the deadline, you must update your GitHub repository containing your source code and any relevant files needed to compile and run your application. Make sure your code is well documented.
2. Submit the following on the Moodle:
    a. A text file named GitHubLink.txt containing the link to your GitHub repository.
    b. A README.txt file describing what works and what does not in your application, any known bugs, and any problems you encountered.
    c. At least 5 screenshots of your game depicting several scenes from your game. You must include a screenshot of your start screen.
    d. A short (2-3 minutes) video of your game. There are multiple software’s which can do screen recording. A free option is OBS Studio (https://obsproject.com/) which has been used by students in the past.

GitHub Instructions

1. Go to this link: https://classroom.github.com/a/3ZgVOoGC
2. After you click on the link, the GitHub page will ask you to sign up for an account or sign into your existing account.
3. The next screen will ask you to accept the assignment.
4. Once you accept, a new repository will be created for you.