Programming Commercial Game Engines



Assignment 3

Due: End of week 13 (Check Submission deadline on FOL)

If you just hand in code I gave to you / we did in class or you will get zero. You can build off code we create but don't just hand in the exact same example.

-20% per day late

You've been tasked to create the world's best mini golf game! The art style, points, and feel are completely up to you but the core mechanics must fulfil the requirements of the marks below. The player must control the game from a first person perspective moving freely around the scene. The direction the ball moves should be based on where the player is standing.

Demo can be found on FOL under the assignments section

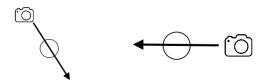
Free 3D assets can be found here: kenney.nl

MENU

- 2 Marks Game starts on a menu with buttons for playing and exiting the application
- 1 Marks Cursor should be visible on menu. (You can see the mouse)

GAMEPLAY

- 2 Marks Character moves forward, back, and side to side in first person using W A S D or the arrow keys
- 1 Marks camera's rotation should be set with mouse movement. I.E. If you move the mouse left the character looks left.
- 2 Marks The balls hit direction is based on the camera's position relative to the ball.



- 1 Marks An arrow around the ball marks the direction the ball will be hit
- 1 Marks The arrow disappears while the ball is in motion
- 1 Marks Hold down space bar to add more power to your shot
- 1 Marks When the space bar is released the ball is "hit" with the force relative to how long you held the space bar down
- 1 Marks The force while holding down the space bar is displayed on screen. This could be via text, graphic, etc.
- 1 Marks Each time the ball is hit the stroke counter increases
- 3 Marks There are 3+ playable levels
- 1 Marks When a level is complete it automatically loads the next level
- 1 Marks Cursor should be hidden in main game. (You can't see the mouse)

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AUDIO

- 1 Marks Background music is used
- 1 Marks Background music is continuously played between scenes
- 1 Marks Sound is played every time the ball is hit
- 1 Marks Sound is played each time the ball hits the target, flag pole, hole, etc...

BUILD

1 Marks - Game is playable as a compiled .exe, not just inside unity editor

BONUS 3 Marks - Game includes use of at least animator controlled 3d object. I.E. a statue on your golf course moves. To get this mark you must get perfect on all other marks!

