Now it’s coffee, now it’s code.

DEFINITIVE EDITION

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Game Engines 1 re-sit

# Task 1

LO1: Conduct research about the use of game engines in real-world projects. Visualize the product you will be working on, both conceptually and functionally. A short scope document must be created following the given template containing at least:

1. Description

A hyper casual game in the art style of most Mobile .IO games, the player takes third person control of a cube and must slowly progress along a path while avoiding obstacles in red, in order to reach their goal.

1. Production Timeline

Player:

1. FPS controller (WASD + Controller)
   1. Get player to move around with WASD / Controller
2. Camera controller (system to follow the player around) <https://youtu.be/MFQhpwc6cKE>
   1. Make a script to follow the player.
   2. Add an offset to adjust and find the perfect angle.
3. Re-Spawn System
   1. Checkpoints <https://youtu.be/ofCLJsSUom0>
   2. Check if hit by red box
   3. Place player back at last checkpoint (reload scene with player at the last touched check point.)

Environment:

1. Platforms + world building
   1. Start with a simple platform.
   2. Add 5 objects:
      1. The floor
      2. The player
      3. Red box (Hurts player)
      4. Blue box (Does nothing)
      5. Green box (Sets player’s check point)
   3. Start adding in code for each of the boxes.
   4. Test each one.
2. Moving obstacles <https://youtu.be/rO19dA2jksk>
3. Moving platforms that player uses
4. Death pit under world just in case the player falls off.
5. Play testing
6. End goal check

UI + menus:

1. Start screen
2. How to play screen
3. Game it’s self
4. Game UI (Health)
5. Win screen
6. Death screen
7. CRC cards

# Task 2

LO2: Prepare workspace and assets for game development. Prepare the necessary design documentation to help guide your development and set up your Unity project. Any art assets you intend to use should be downloaded or produced before the start of Task 3.

1. Design brief
   1. The target device (incl. screen resolution, input methods)

Desktop.

* 1. Controls methods and game mechanics

WASD to move, camera is fixed in place, player uses W to move up the game S to back up when needed and A + D to navigate around obstacles, the camera is blinded to the player with a set offset, the player is sent back to a check point when they hit a red object and nothing happens when they hit a blue object, a player can not pass though blue objects.

* 1. Game screens
     1. Start screen.
     2. How to play Screen
     3. Game screen
     4. Pause menu.
     5. Win screen
  2. Gameplay flowcharts

Reach the end goal, when a player passes over a check point their respawn point is moved to that check point

* 1. Game objectives

Get to the end of the track while avoiding obstacles,

* 1. Art assets (2D / 3D)
  2. User Interface outlines

1. GitHub repository
2. Art Assets

# Task 3

LO3: Assemble a game level using standard tools within a game editor. Create your game according to the specifications outlined in the above task.

1. Game assets
2. GUI
3. Code commenting

# Task 4

LO4: Build and deploy a game project to a chosen platform. Once you are satisfied with the state of your work, create a build of your game for your target device using the correct settings (using the Player Settings in your Build Settings window) and upload it as a release version on your GitHub project.

1. Sign your game’s Company/Product names and assign the correct version (1.0).
2. Add an appropriate Icon and Splash Image.
3. Set up a Bundle Identifier and Build number