

Summary of Game:

For the final exam you will be creating a 3D, First-Person 'Collectathon' game. The main objective of the game is to collect enough 'pickups' to advance to the next level. There should be an exit Goal location, and if the player has the required number of 'pickups' when they walk into this Goal, they should advance to the next level (or the main menu if they are on the final level).

Some basic scripts and assets are included, but you will need to write a little bit of code to 'glue' together systems (e.x., connecting the player's health to the healthbar). The basic player prefab is mostly setup for you, but other prefabs (such as the 'pickup') will need to be created and configured with the correct tags, layers, scripts, components, etc.

Requirements:

Main Menu [5 marks]:

Create a main menu scene with 2 buttons: Start Game, and Quit. This should be the first scene in your build settings, and both buttons should be functional. Use the default Unity Sprites, but be intentional with your layout and colour choices.

HUD [10 marks]:

In the main levels you should create a Heads Up Display (HUD) that displays the following information:

- HealthBar: shows a representation of the player's current health relative to their maximum health
- Pickup Count: display the number of pickups the player has collected so far in the current level.
- Optionally, you may want to also show the player how many pickups are required to advance to the next level.

Levels [15 marks each, 30 total]:

You are required to create 2 visually distinct levels. The first level should be treated as a tutorial level, and the second level should be larger. Marks will be given for visual quality, level design etc.

Terrain [10 marks]:

Create a terrain for at least one of the two required levels.

Pickup Prefab [5 marks]:

Use the included assets to create pickup prefab(s). These pickups should be placed throughout the levels. When the player walks into them, the pickup should be collected, and the HUD should update to reflect the amount of pickups the player has collected so far. A rudimentary pickup script is included in the ExamTemplate, but it may need to be altered/expanded upon to meet the requirements.

Hazard [5 marks]:

You should include at least one type of hazard per level. These hazards should inflict damage to the player, either on contact or through damage over time. A rudimentary Hazard script is included in the Exam Template, but it may need to be altered/expanded upon to meet the requirements.

Goal Prefab [5 marks]:

Each level should have at least one goal. As described above, when the player walks into the goal, the goal script should check if the player has enough collectables in the current level. If they do, the player should move on to the next level (or the main menu if it's the last level).

Post Processing [5 marks]:

You should include a post-processing volume with some basic post processing settings to improve the visual appearance of your levels.

Lighting/Skybox [5 marks]:

Replace the default skybox with one of the Skyboxes included in the provided ThirdParty assets. Also, Light the scenes as best as possible!

Windows Build [10 marks]:

In your submission, make sure to include a windows build of the game.

Unity Project [10 marks]:

In your submission, make sure to include a .zip file containing your **entire** Unity Project. Failure to include this will make it impossible to mark many of the above requirements and may result in late marks and/or failure.