

Painful Smile Test

Objective

Understand more about the candidate's acknowledgment in game development, in OOP (Object Oriented Programming), and in Unity itself. **The candidate must read this document and provide an estimation time to complete it.**

The Game

A Top-Down Shooter about pirates, all assets needed are provided inside the drive folder.

Gameplay

The player will survive and destroy other ships until the game session ends.

Player

Movement

- Move Forward
- Rotate

Attack

- Frontal single shoot
- Side triple shoot (parallel bullets)

Enemies

There are 2 types of enemies, the Chaser and the Shooter. They are described below in the Attack section.

Movement

- Move forward
- Rotate

Attack

- "Shooter" type will shoot the player when they are close to him.
- "Chaser" type will chase the player and hit him with their own ship. They will explode when they hit the player.

Spawn

- Enemy Spawns every X seconds, until the end of the session.

Obstacles

- One or more islands that stop the player and enemy ships.

Game Rules

- The game session must be between 1 and 3 minutes.
- Every enemy kill gives 1 point to the player.
- At the end of the session, the final screen must show the player total points and two choices: "Play Again" and "Main Menu".
- The player and enemy health must be shown on top of their ship.
- The player ship cannot leave the screen.

Main Menu

- At the main menu, there will be only 2 options: "Play" and "Options".
- Inside the Options menu, there will be 2 options: "Game session time" and "Enemy Spawn time".

Animations

- Shoot Explosion
- Death Explosion
- Ship deterioration according to its health.

Project Rules

- All gameplay parameters should be configurable in the editor. For example - Player speed, Enemy speed, Player damage, etc.
- All scripts should be written by the candidate, while other assets can be freely used.
- The Unity project is needed, there is no need to generate a build.
- Everything should be in English.
- Comments should be avoided. The naming should be auto explanatory.
- The Console should be error-free.
- The game should be complete and functional.

Conclusion

All those items will be individually reviewed:

1. Project Organization;
2. Engine Understanding;
3. Code Structure;
4. Programming Logic.

Bonus (Optional)

- Share the project through a Git Repository.

Unity Version

Latest Long Term Support Version.