## Questions and explanation by Gabriel Cabrera

Question 1: You have finished developing a mechanic for a videogame, and during the testing a new bug is found. Which kind of procedures would you follow? Which tools would you use to find the bug?

I usually use the Visual studio for make the code, and with the visual studio can make breakpoints and associate the code with the unity project, and when you play the project you can debug in the visual studio code the different breakpoints and values of the code.

Question 2: You have to create a new enemy in the game. This enemy has a field of view, and if the player is inside this field of view (Cone), the enemy changes his state to alert. How would you detect that the player is inside the enemy's field of view? Are there any optimizations possible?

For this I Will use the angle function of the vector3 to calculate when the player is in a position with an angle smaller than for example 45 degrees and if the distance between the player and the enemy is less than for example 10 points.

I think this is the better form to make for these reasons I think that I cannot optimize more.

Question 3: You are planning to build a prototype of a third person controller. Which design patterns would you use to build the controller?

I use a design patters where I put the different functions that the controller needs, like the movement, the jump and if have some type of attack or something.

## **Explanation:**

I create a player that have a controller that make that this player move and jump in the script, also I create a rope with a hinge joint to simulated that this is a real rope.

In the script of the player, I controlled when the player is in the rope to change the movement to the rope and not to the player, and when the player jumps of the rope change the controller to the player movement.

I used to the player the free asset library "Supercyan Character Pack Free Sample" to make that the player have any animation and mesh.

For the camera movement I use the Cinemachine library.