Assignment 3 - Power-ups

In space shooter type of games the player usually gets some boosts or power-ups when an enemy dies. In this exercise, we are going to implement that functionality.

Minimum requirements

When an enemy dies, there is a chance that it will spawn a power-up. The chance should be adjustable from Unity editor (eg. 30% chance). In the minimum implementation, the enemy will spawn a health power-up, which will heal the player by an adjustable amount of health (eg. 20 hp). This will be adjusted from the power-up prefab. Note that player's health should not exceed the maximum health amount.

The power-up should have a limited lifetime, eg, 5 seconds (this should also be adjustable from the editor). If the player collects the power-up, the player will be healed and the power-up should disappear. If the player doesn't collect the power-up in time, it should disappear without granting the player any health.

You should also add a text component to the GUI which indicates how much health the player unit has.

Bonus

As a bonus task, you should implement a projectile power-up. Sometimes an enemy will spawn a projectile power-up instead of a health power-up. This power-up should work exactly like the health power-up, but instead of giving the player more health points, this power-up will give the player spaceship additional weapon (or two) for a limited amount of time (e.g. 5 seconds). If the player already has an additional weapon, the time the additional weapon is available is increased by the time the power up defines. (Additional weapon means that the player spaceship can shoot more than one projectile at a time.)

You should also add a timer to the GUI which indicates how long the player has the additional weapon available. Once the time runs out, the additional weapon will be disabled.

Grading

0: Exercise is not returned on time or it does not meet the minimum requirements
1-2: Exercise meets minimum requirements but it doesn't work properly or it doesn't follow practices we have studied during lessons.
3: Exercise meets minimum requirements, it works properly and it is well done.
+2 points: bonus task is implemented

Deadline

Sunday 12.11.2017 at 23:59.
Submit a link to your implementation by email or create a pull request.