**Asteroids (report)**

I’ve made an asteroids-like game, with 2 scenes and all tasks and optional tasks.

* MenuScene: play button and player highscore;
* GameScene: gameplay (endless level).

**Architectural decisions:**

1. I like to split UI elements, level elements and management scripts in different containers, i.e., in both scenes there are empty objects in hierarchy tab to handle with;
2. There are patterns as singleton, pooling and factory;
3. 'SoundManager' script isn't destroyed on scene transition, with the intention to not stop the background music;
4. In Menu scene there is just a script (‘UIMenu’) to activate the ‘Play’ button and to load the ‘High Score’;
5. In Game scene:
   1. There are two cameras, one to show the UI and other to show all level elements. This last camera is the main one and there is a script called ‘ScreenShake' in the scene to add a little shaking when the player destroy any obstacle (asteroid, enemy or UFO);
   2. To handle with game rules, there is a script called ‘GameManager’. This script is responsible to spawn the asteroids, enemies and UFOs, but it uses other scripts ('Asteroids Spawner’, ‘Enemies Spawner’ and ‘UFO spawner’) to handle with specifications about each prefab.
   3. The 'PlayerMotor' is the most important script to control player's ship. This script used others scripts to access the weapons, the movement, the player data and most important, to define which input will be used (touch or keyboard);
   4. There is a script (‘RendererWrapping’) to simulate what original Asteroids had made, i.e., when any object goes off the screen, it comes back to the screen on opposite side;
   5. All gameplay UI elements are manipulated by 'UIGame' script, to centralize all visual feedbacks;
   6. 'GlobalVariables' script holds all informations used by more then one script.