

In this project, you will implement a subset of the requirements of the space shooter 2D game. You are NOT ALLOWED to use foreign code from online sources. Along with this document, you are provided with a library of assets that you can use in your project.

The tasks you should submit in 2 weeks are as follows:

#### A. The Player:

- [05 pts] **Control jet movement**: moves with mouse along the x and the y axis and does not leave the screen. You should make sure that not even a part of the jet leaves the screen.
- [10 pts] **Player shooting**:
  - Player shoots bombs from its front middle.
  - Player can collect up to **3 bombs**
- [10 pts] **Player's Life** is a number between 0 and 100 and cannot exceed that.
  - The life is reduced by 10% when hit by a meteor
  - UI representation: a Text UI element displayed on the top left corner
  - When health reaches 0, a "game over" image is displayed and the game is stopped:
    - The jet does not follow the mouse movement anymore.
    - Meteors and all other collectibles stop descending
- [10 pts] **Collectible object**: the bomb item appears at the top left corner of the screen and moves towards the right bottom corner in a diagonal way.



#### B. [20 pts] The Meteors:

- **Two types of meteor movement**:
  - move downward
  - shoot across the screen in an oblique trajectory
- Meteors have random sizes and sprites chosen randomly as well.

#### C. [15 pts] The bomb effect:

When the bomb goes off, *ALL METEORS* in the scene get destructed at that instant.

#### D. [10 pts] Audio effects:

- Bomb going off
- Player hit by meteor

#### E. [10 pts] Animations:

- Exploding bomb

**Project submission:**

1. C# CODE
2. [10 pts] Video presentation: 75 seconds video with lowest quality showing:
  - a. The running game (less than 15 seconds)
  - b. **Explaining the various components: (IMPORTANT):**
    - c. Objects
    - d. object's exchanged references
    - e. prefabs
    - f. colliders
    - g. audio source
    - h. UI elements
    - i. Animators and animations
    - j. and all involved elements created in the project

