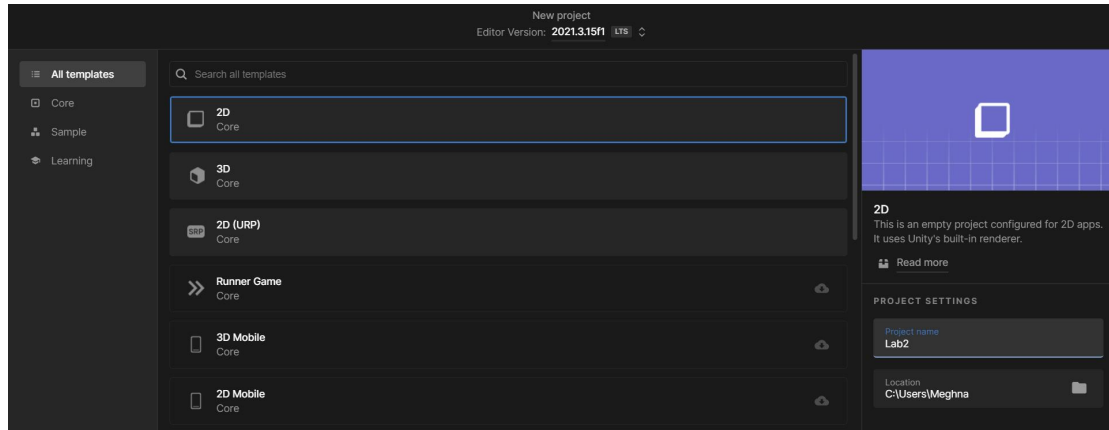


## GAME PROGRAMMING LAB 2

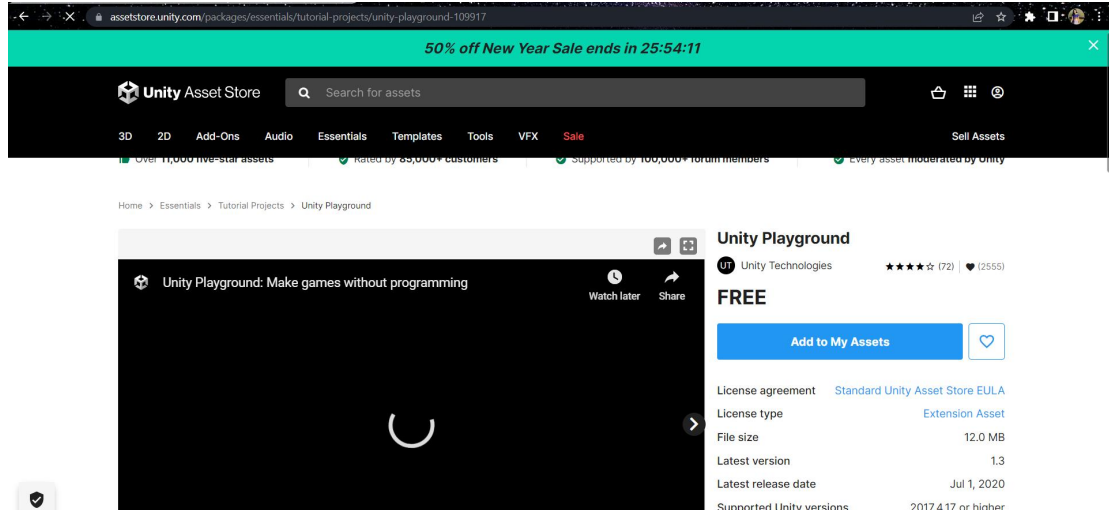
- Meghna Sinha, 20BAI1133

### Creating a Project using a 2D Template

Create a project in Unity with the 2D Template

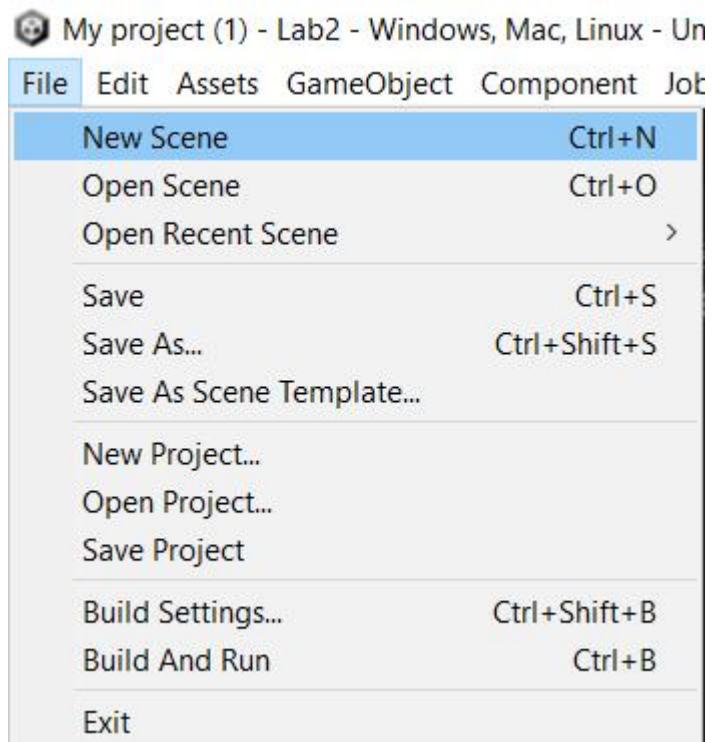


Add Unity Playground by going to the Asset Store. Download and import files to the current project.

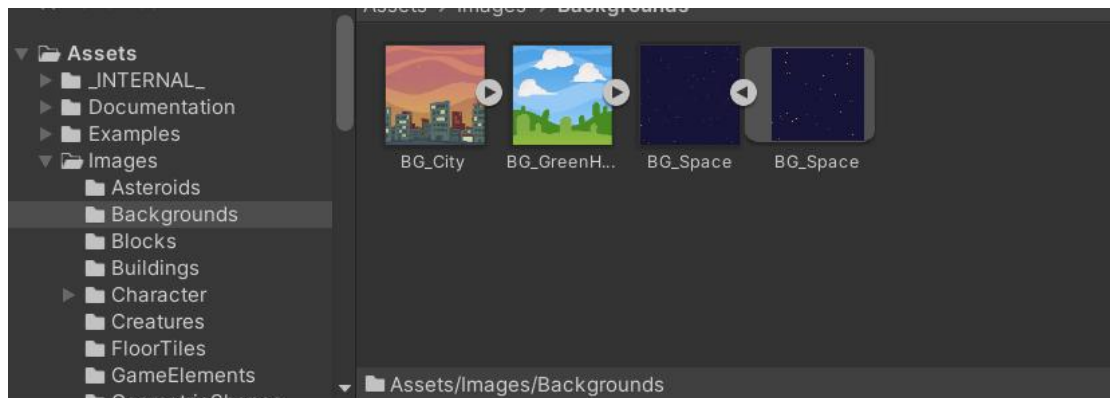


To create a new Scene

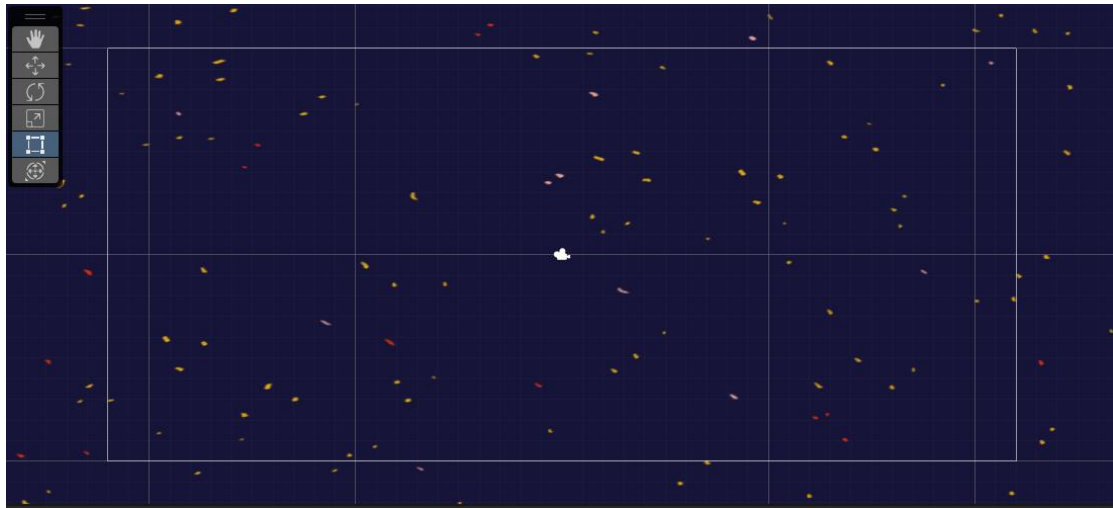
We will go for File-> New Scene



Project window -> Assets -> Images -> Background

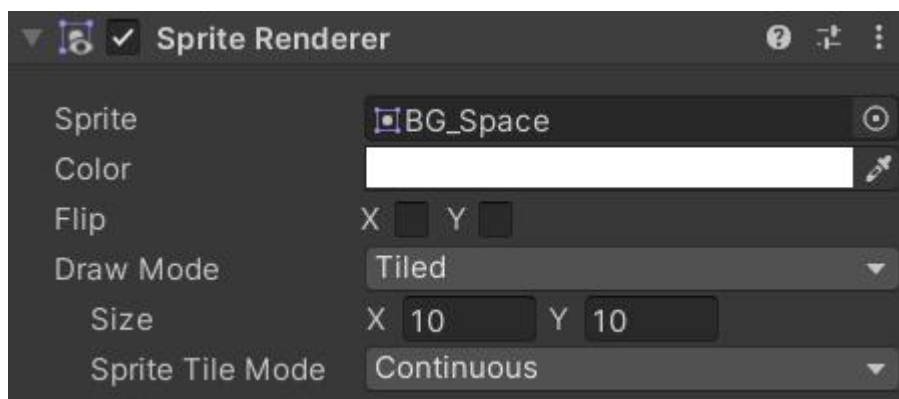


To start with our 2D scene, we will first select a background and drag it into hierarchy

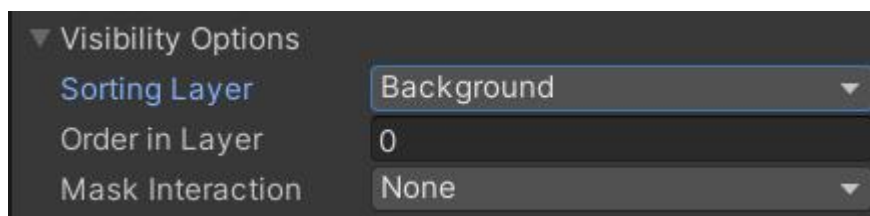


After the background is chosen we make some changes in the settings.

Change draw mode to 'Tiled' from 'Simple' as many graphics support tiling.

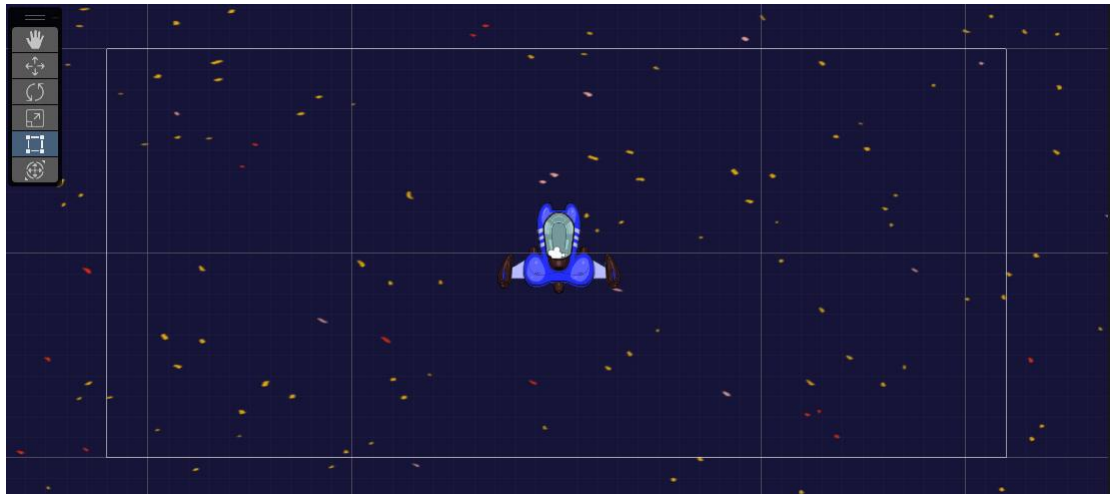


We will also change the visibility settings for the background from 'Default' to 'Background' so that all game objects are visible when placed on it.



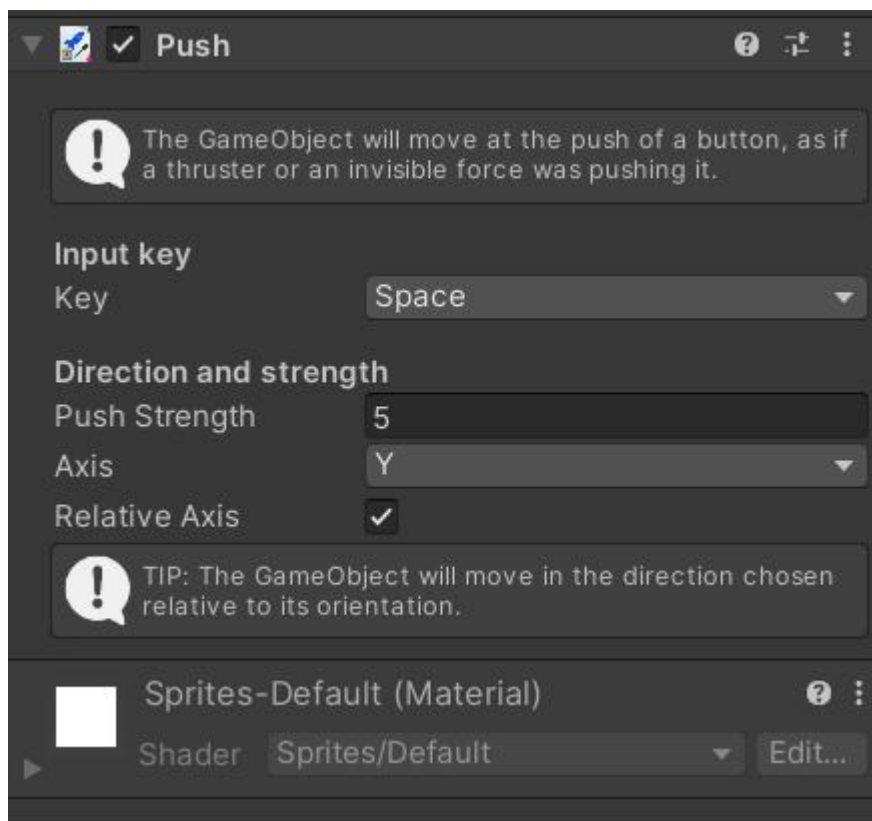
Now we will proceed with adding objects to our scene.

The first object we will add is the Spaceship.



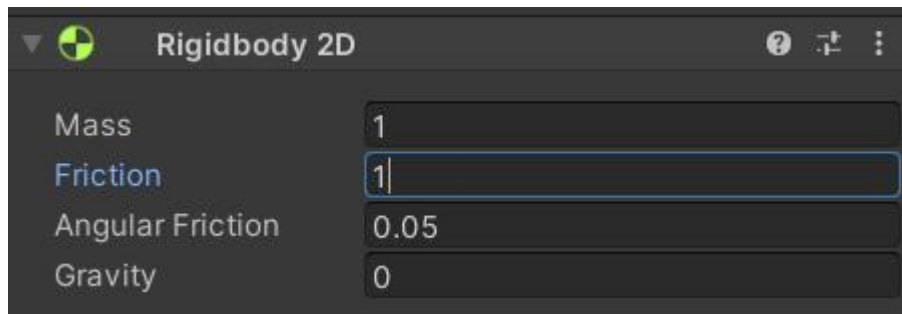
Now we will add some components to the spaceship to facilitate it to move

Spaceship -> Add Component -> Push.



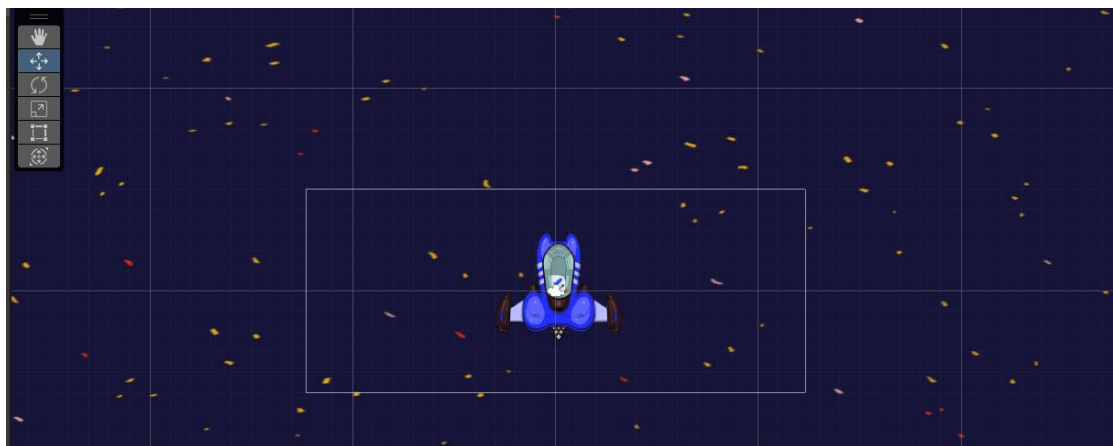
This automatically adds a Rigid Body component.

Changing the values of gravity to 0 and friction to 1

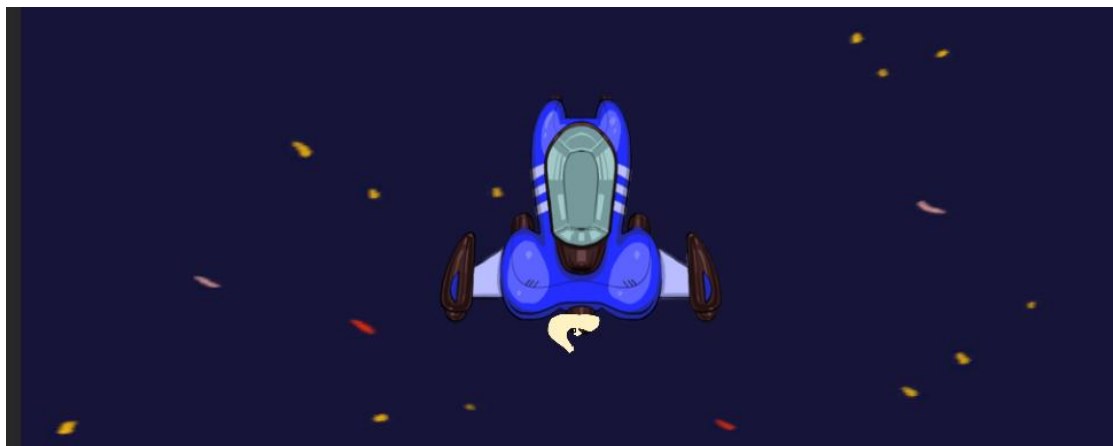


Adding flame to the spaceship

Project window -> Assets -> Prefabs -> Particles -> P\_Flame -> Drag it under the ship

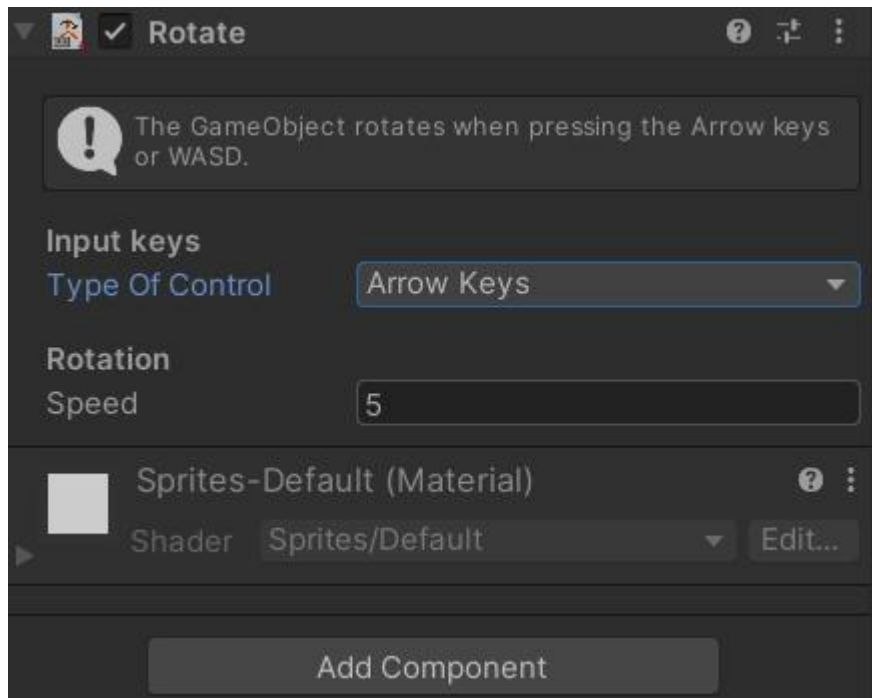


Initial game scene

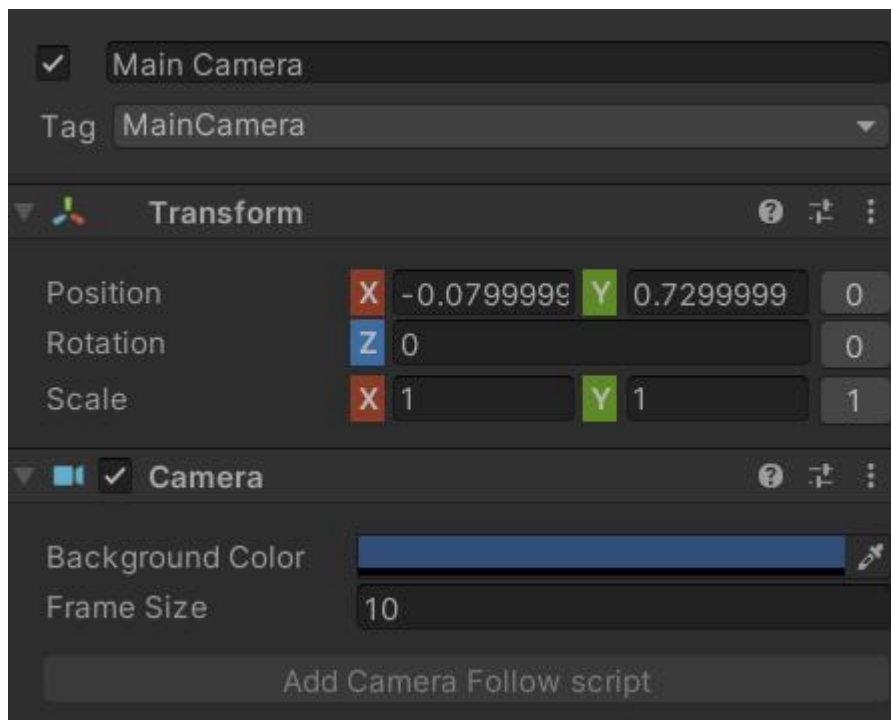


We also add the rotate component to the spaceship.

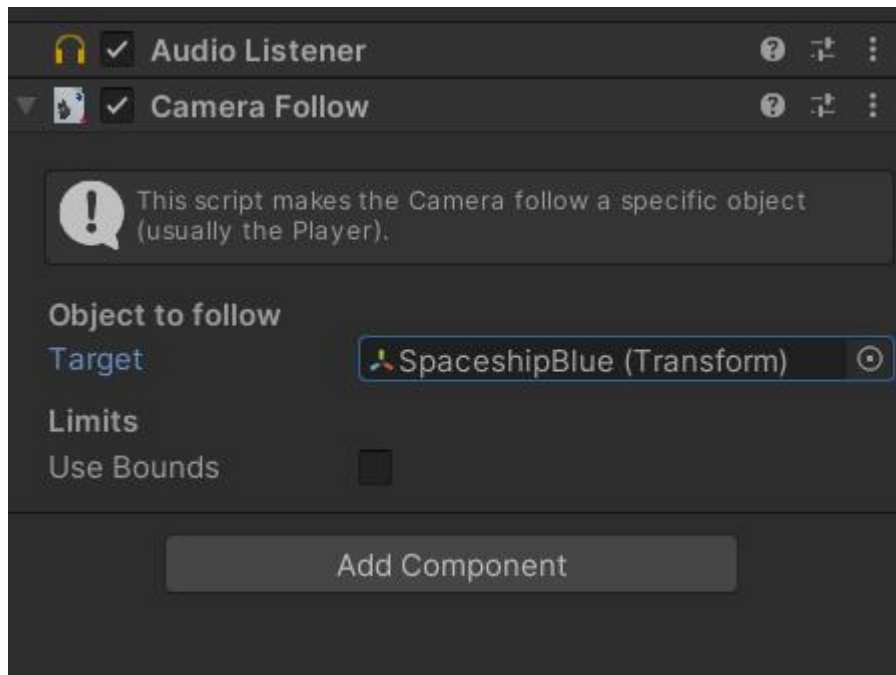
We then proceed to fix values for attributes type of control, angular friction and rotation speed.



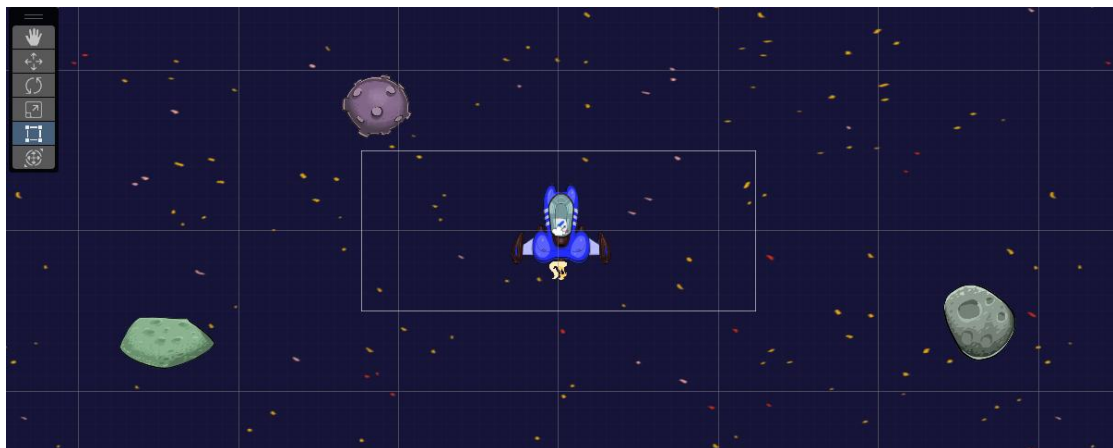
Now we will proceed with the main camera settings



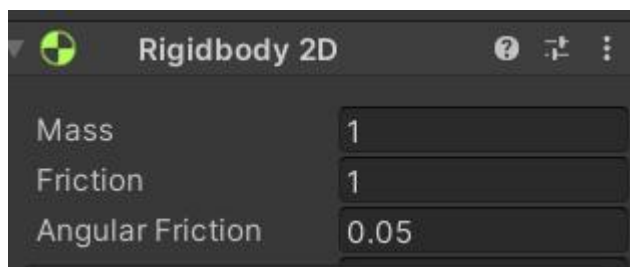
To add the camera follow, we must select an object. In our case it would be the spaceship



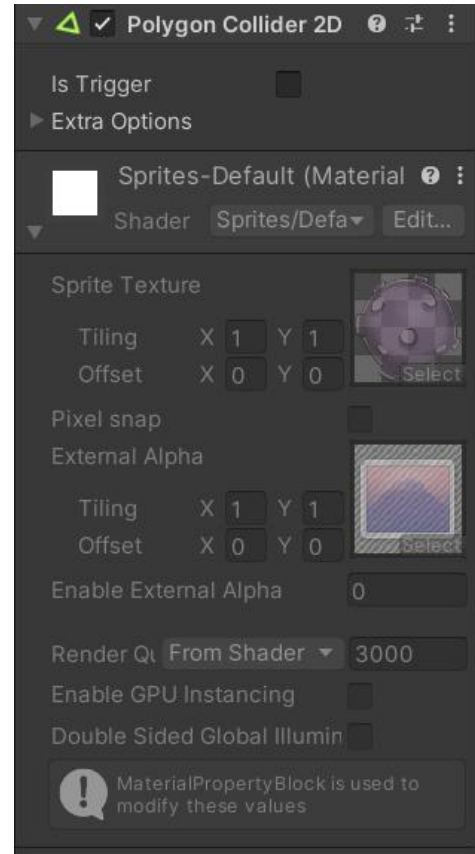
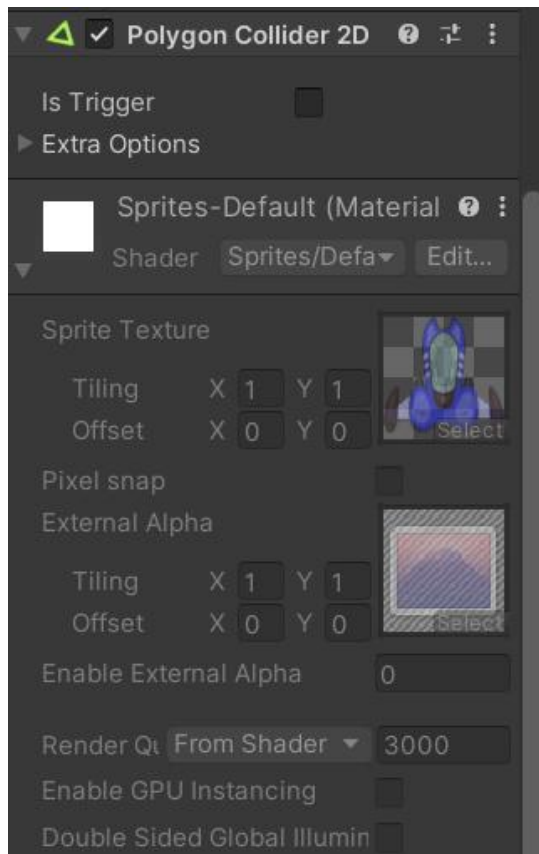
We will now add asteroids to the environment to act like obstacles



We will also add rigid body settings to the asteroids to fit the environment.



Now we will add the Polygon Collider to the spaceship and asteroid to create impact when they collide.



Current game scene:



As we can see the spaceship and asteroid are able to collide with each other.

Game Video :

<https://drive.google.com/file/d/1Lq7VF4-5HipuHfH7OfrzFeNDpR-xw9/view?usp=sharing>