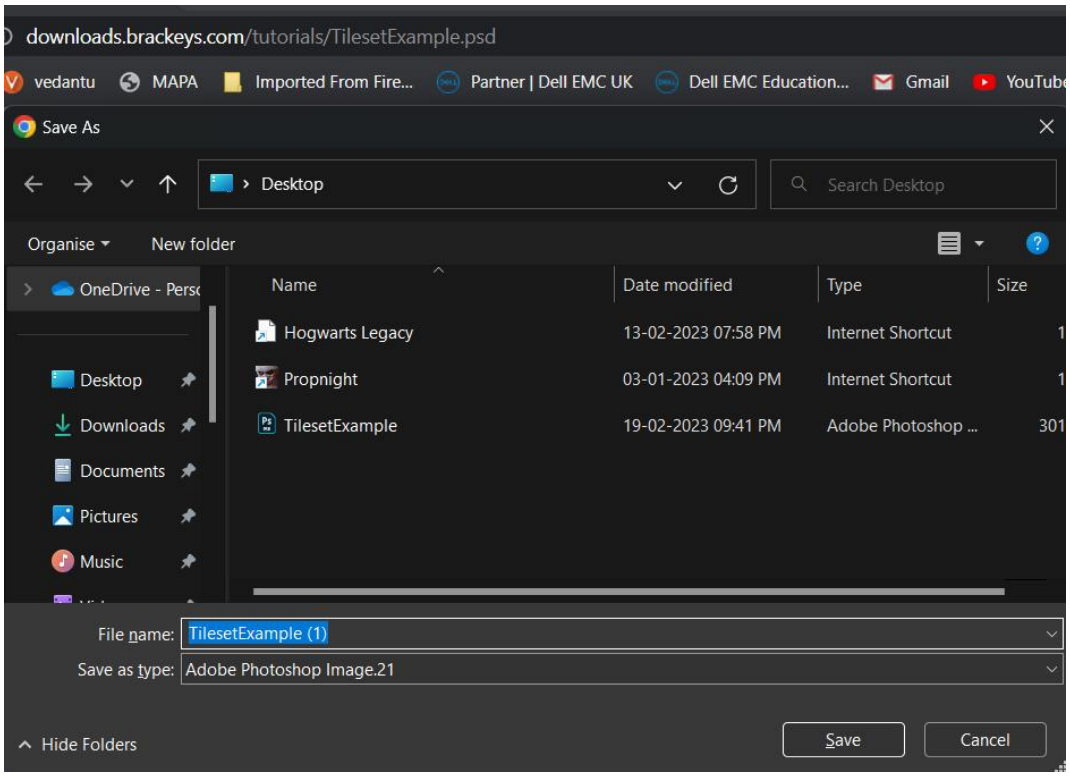
Game Programming Lab 6

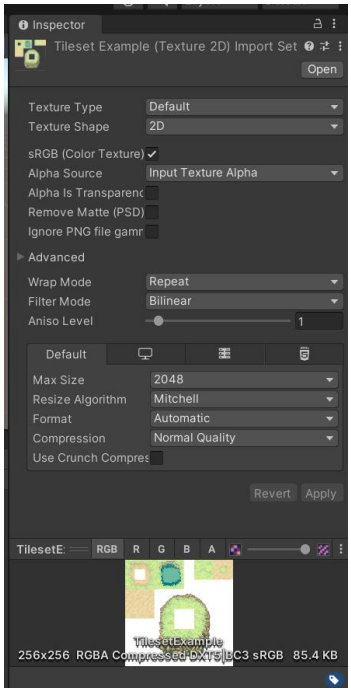
- by Meghna Sinha, 20BAI1133

Tilemap:

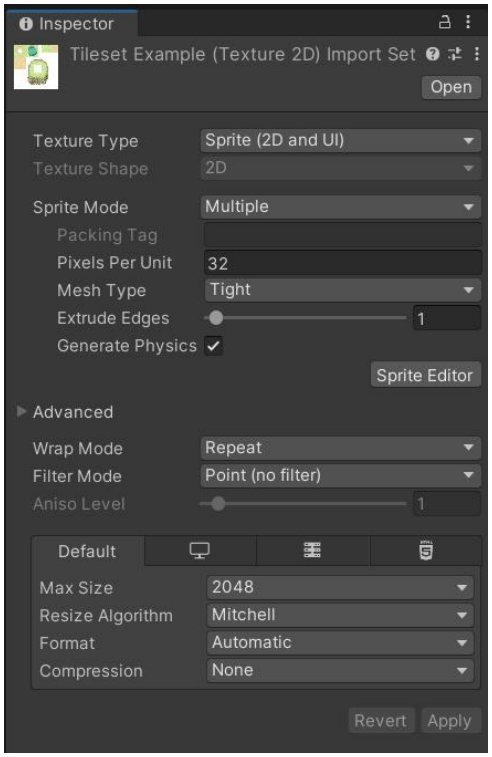
- Downloading tileset



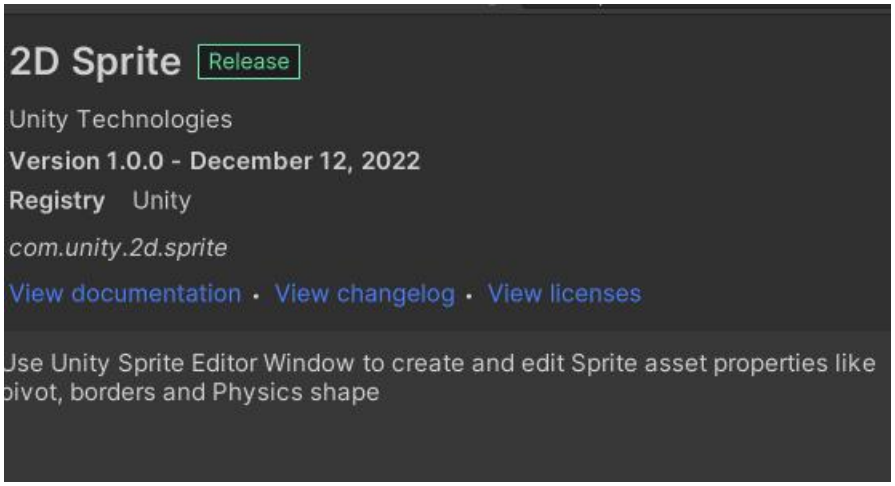
Adding tileset to unity assets



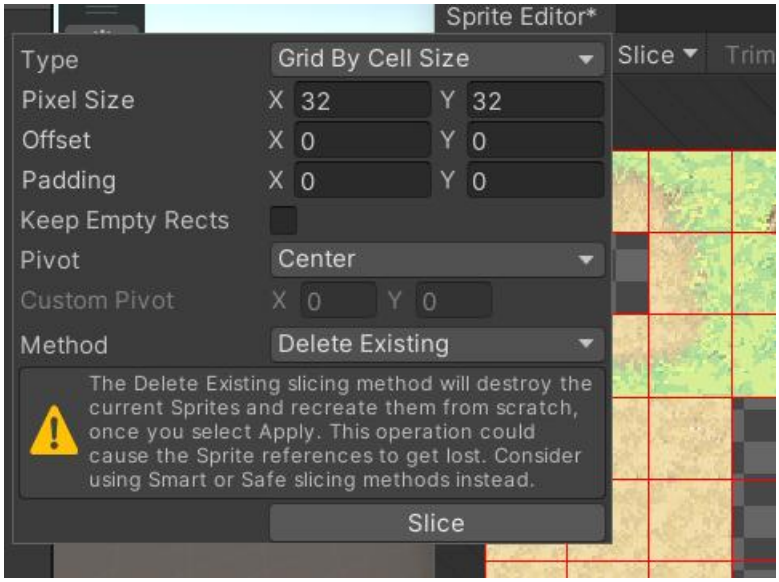
We now change the parameters of the tileset



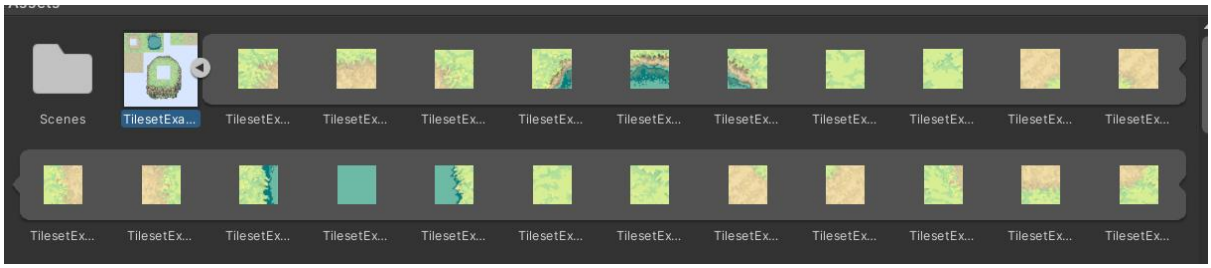
Install and importing 2D Sprite in package manager for sprite editor



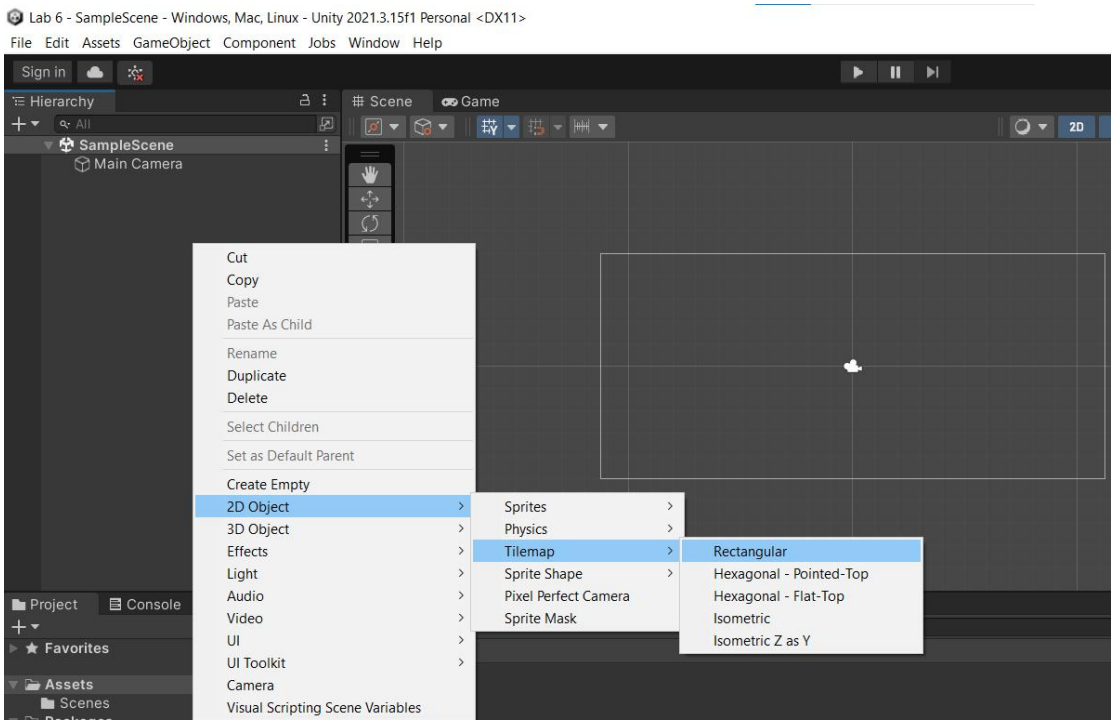
Open Sprite editor and slice into 32x32 pixels



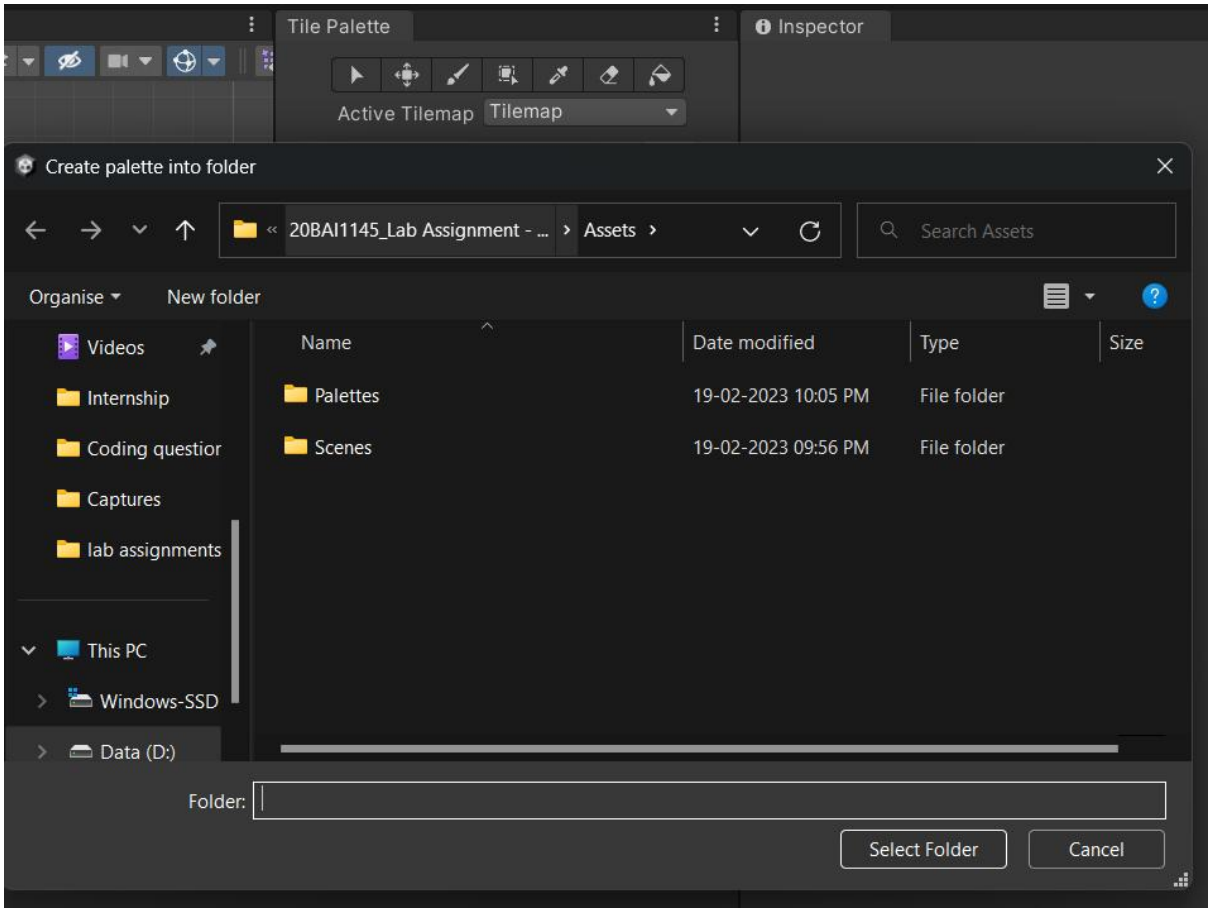
As we can see, now sprites are created



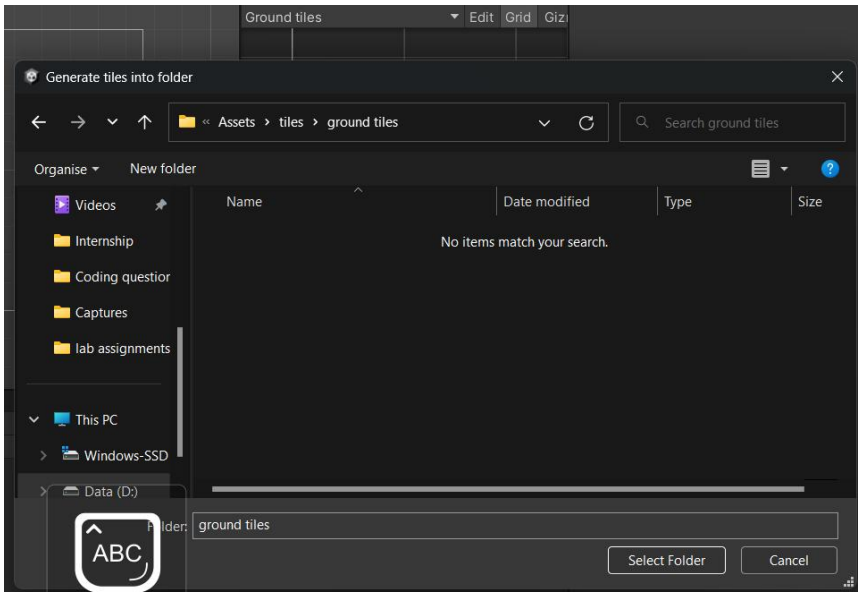
Now create Tilemap



Open Tile palette and create a new tile palette.



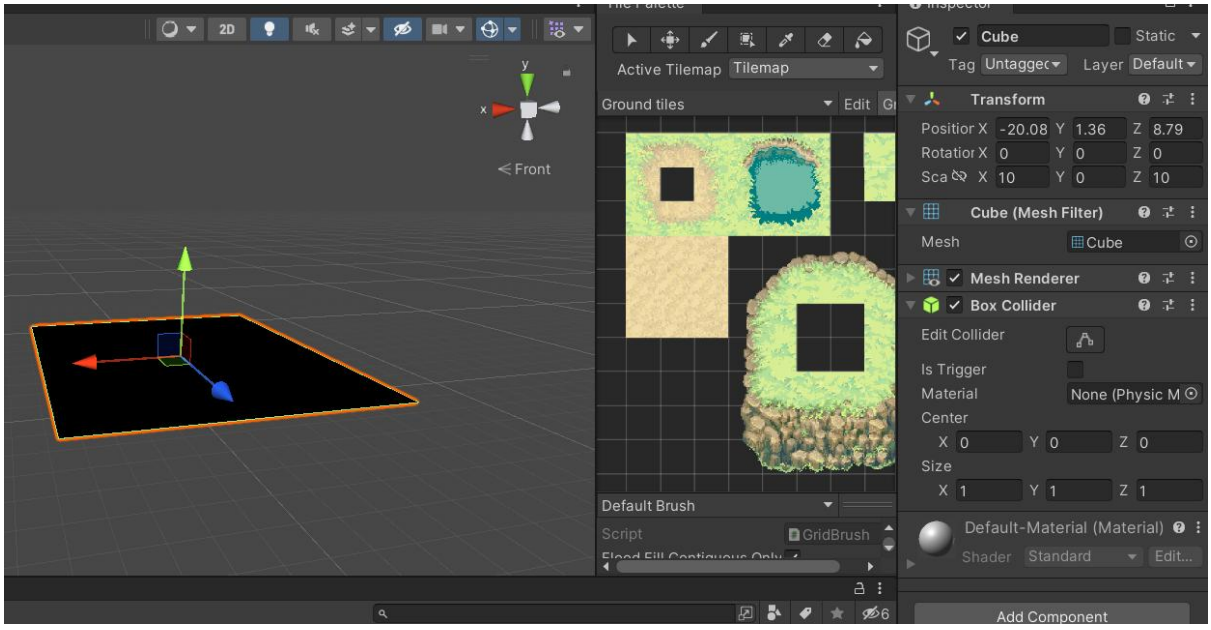
Add sprites to the tile palette.



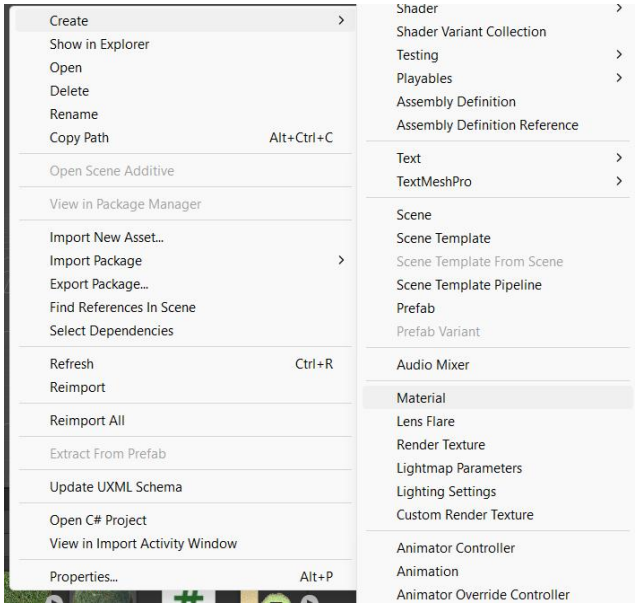
Creating a 2D environment using the tile palette.

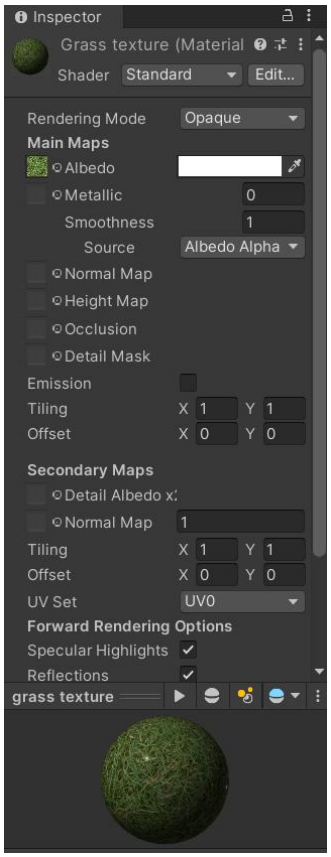
Material Scroll Effect:

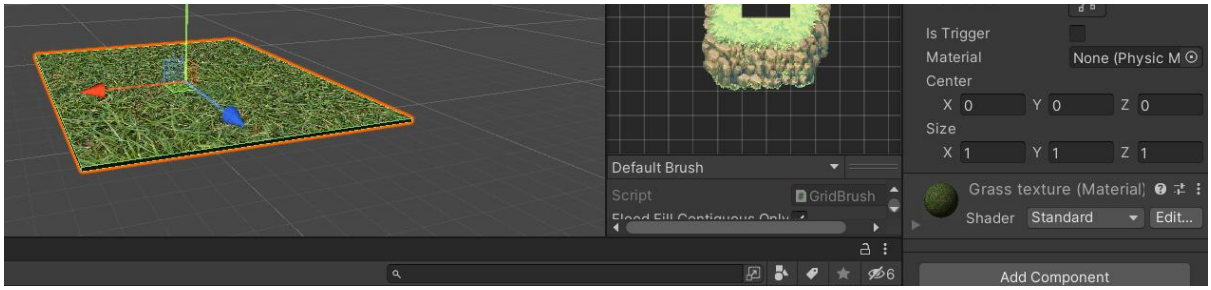
Creating cube



Downloading texture, creating material and adding to the cube







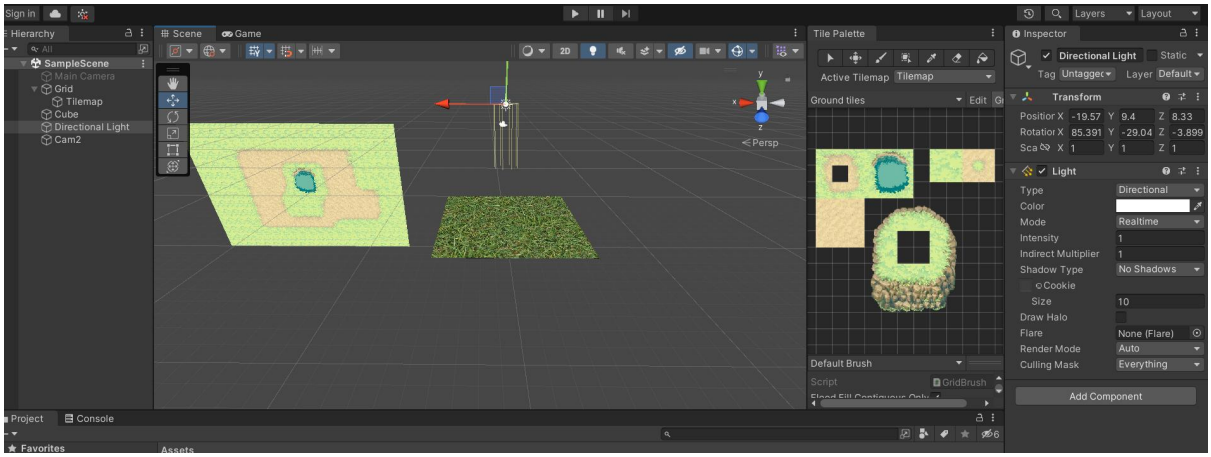
Script :

materialscroll.cs

D: > Praveen > Study material > Praveen > Cse > cse3122 game prog > unity > 20BAI1145_Lab Assignment - 6_Tiles and Scrolling > Assets > materialscroll.cs

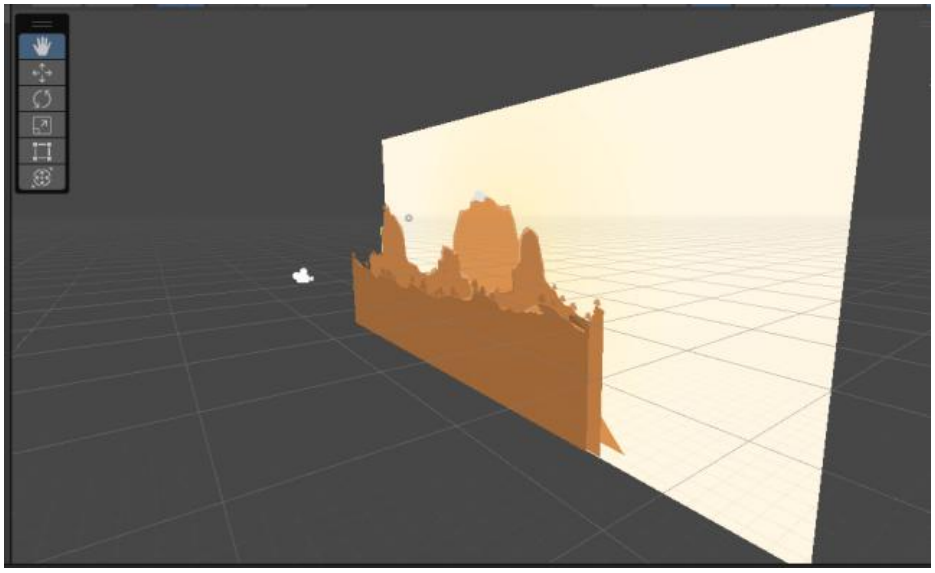
```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class materialscroll : MonoBehaviour
{
    public float ScrollX = 0.5f;
    public float ScrollY = 0.5f;
    void Update()
    {
        float OffsetX = Time.time * ScrollX;
        float OffsetY = Time.time * ScrollY;
        GetComponent<Renderer> ().material.mainTextureOffset = new Vector2(OffsetX, OffsetY);
    }
}
```

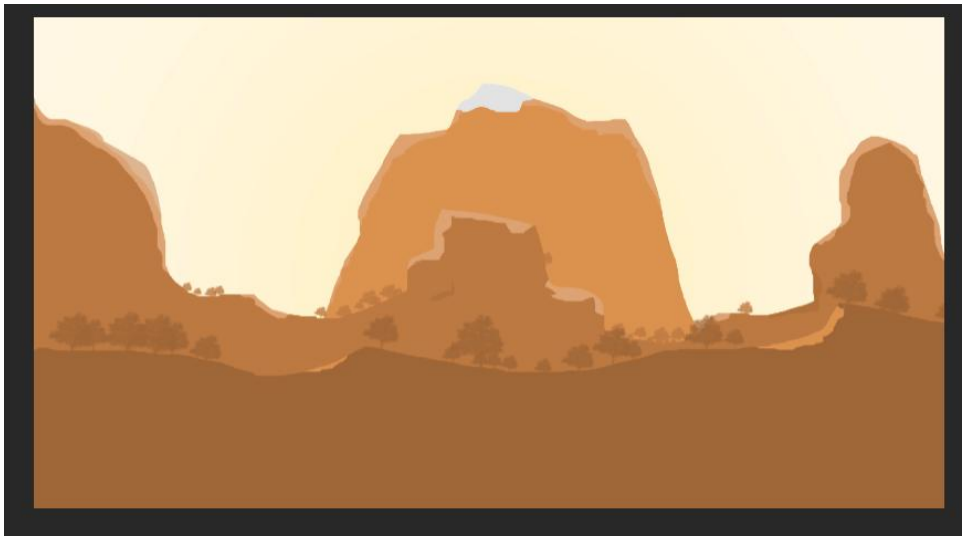
Adding a camera for the scrolling effect and running



Background Scrolling:

Taking background images for parallax effect

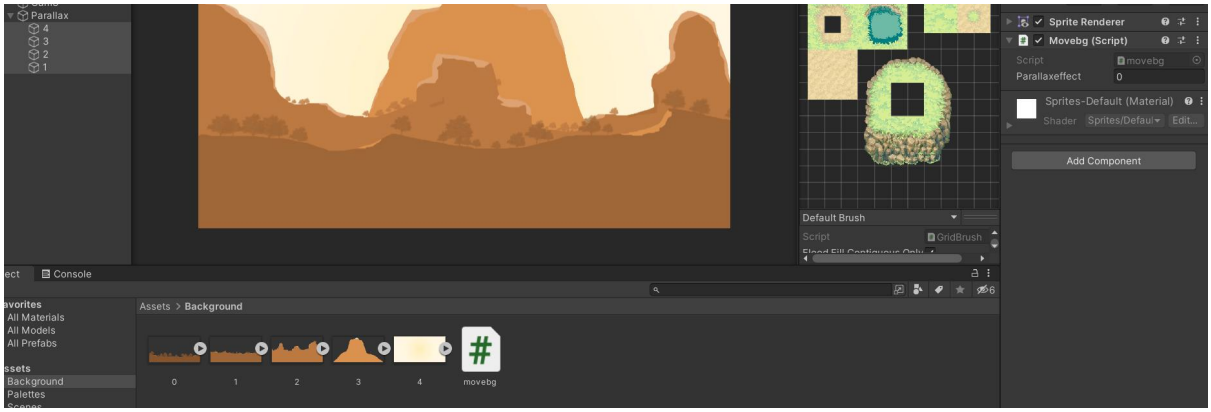




Script :

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class movebg : MonoBehaviour
{
    private float startPos;
    private GameObject cam;
    [SerializeField] private float parallaxeffect;

    void Start()
    {
        cam = GameObject.Find("Cam3");
        startPos = transform.position.x;
    }

    void Update()
    {
        float distance = (cam.transform.position.x * parallaxeffect);
        transform.position = new Vector3(startPos + distance, transform.position.y, transform.position.z);
    }
}
```

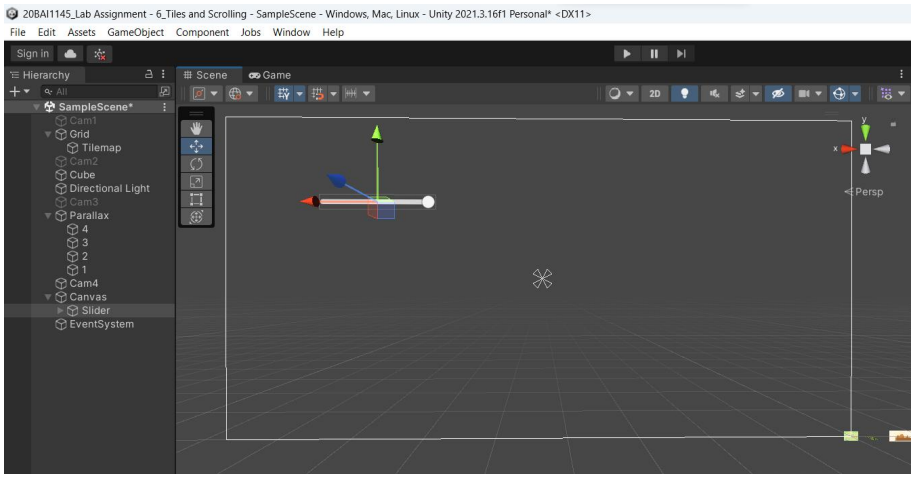
Adding parallax coefficients to the different background images



UI:

(a) Slider and text:

Adding Camera
Adding Slider and text to show slider value.

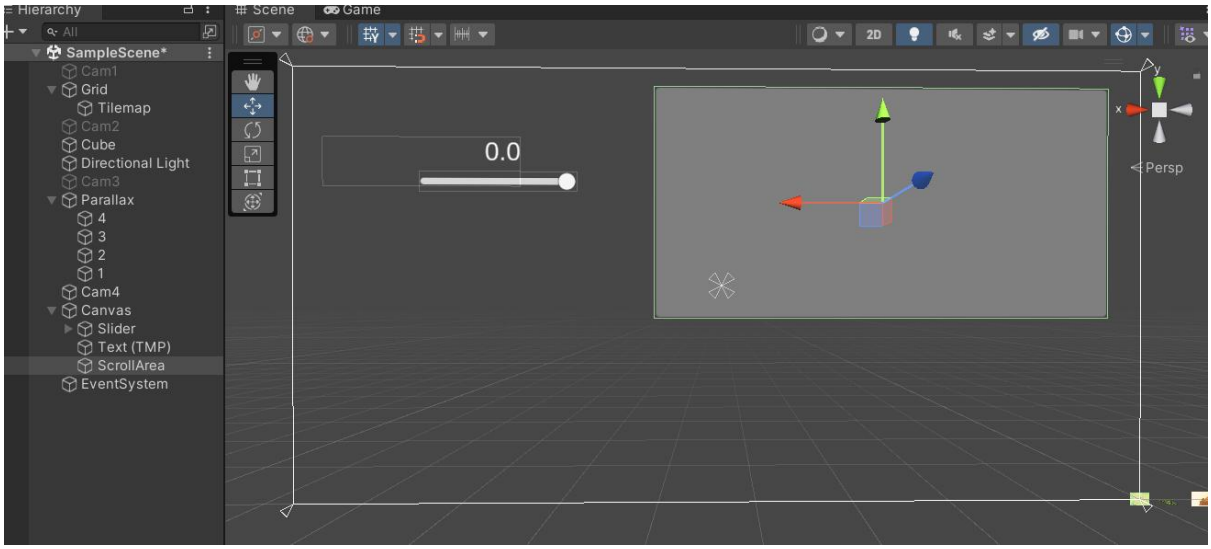


Script :

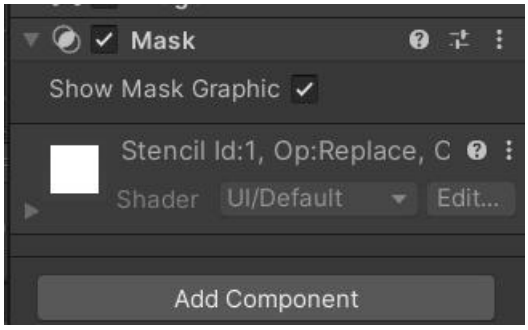
```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;
using TMPro;
using UnityEngine.UI;

public class Slidertext : MonoBehaviour
{
    [SerializeField] private Slider _slider;
    [SerializeField] private TextMeshProUGUI _sliderText;

    void Start()
    {
        _slider.onValueChanged.AddListener((v) =>{
            _sliderText.text = v.ToString("0.00");
        });
    }
}
```

(b) Scrollbar:

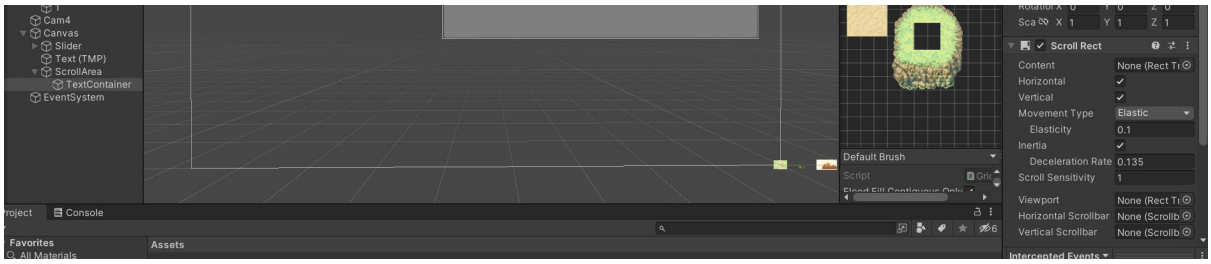
Creating scroll UI area



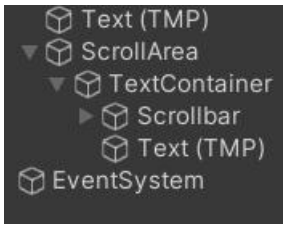
Add UI>Mask script and disable for now



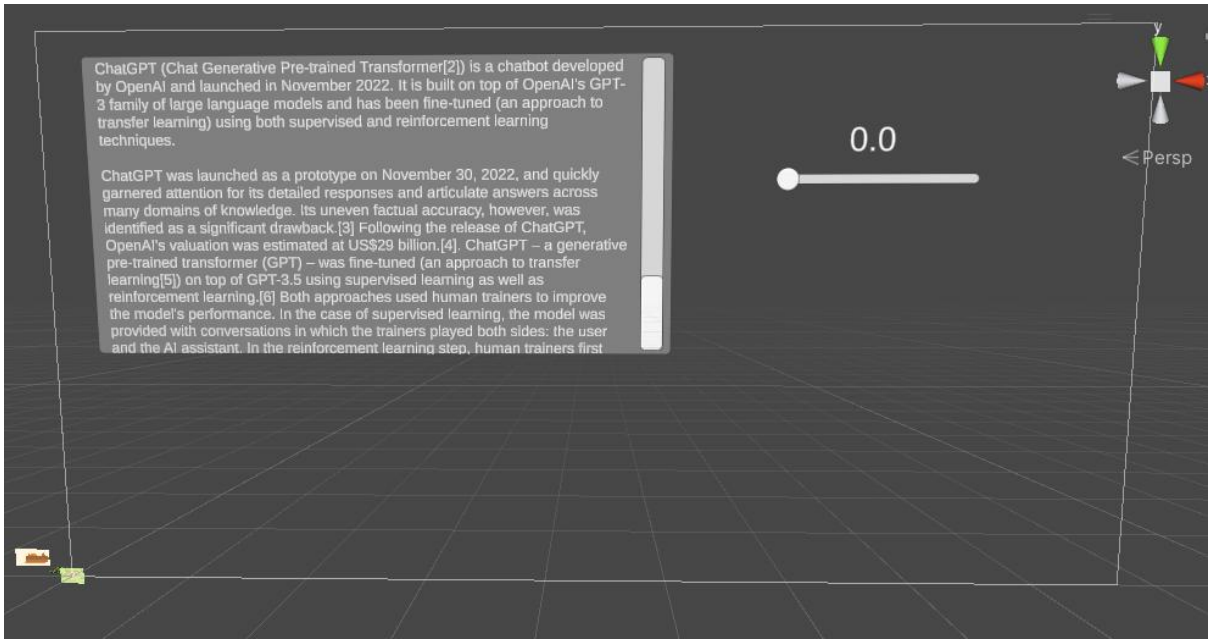
Add empty and add scroll UI>scrollrect.



Right click Text Container and add scrollbar and text.



Adding text



Drag and drop text into scroll bar ‘Content’ into TextContainer and scrollbar into vertical scrollbar.