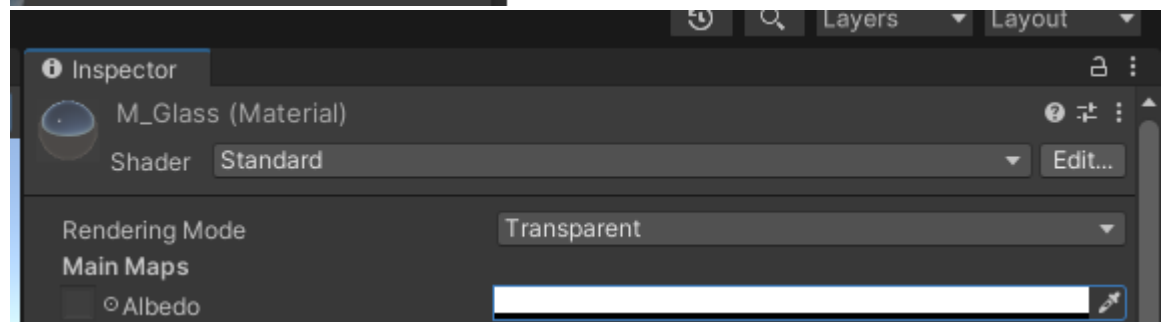Program 1:

Create a 3D environment with particle effects, Materials and other effects.

Sol:

Steps:

1. Add 3D object cube and set (x,y,z) as 5,0.5,20
2. Create material
   a. colour Blue and increase smoothness apply on Ground
   b. Glass material: Increase smoothness and shine and change Rendering Mode to transparent
      Click Albedo and set Apha to 0

3. Apply material on cube and name cube as Ground
4. Add Capsule and name it Character and Add material yellow colour
   a. Add component Rigidbody to character
5. Right Click -> Effect-> ADD Particles
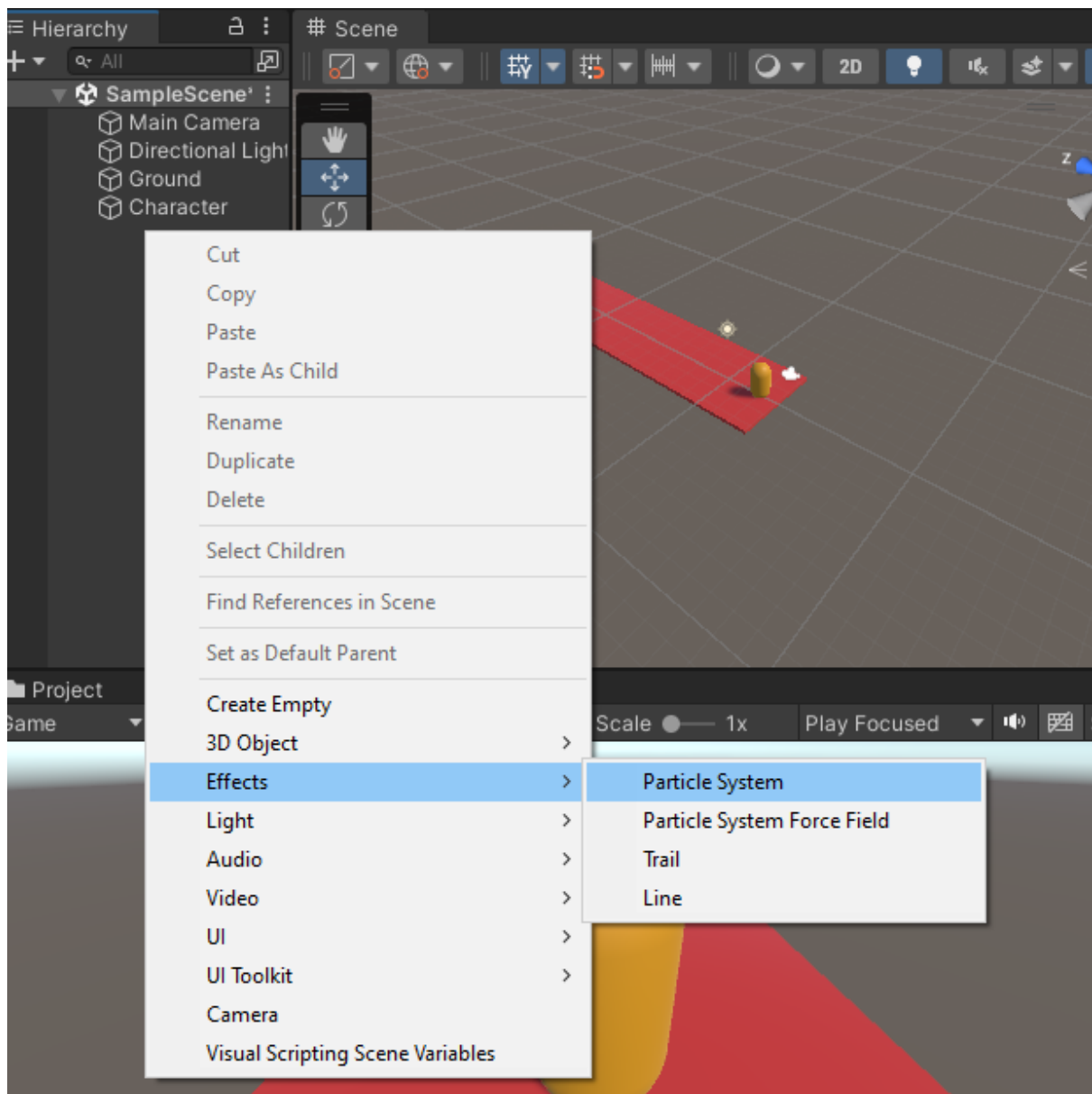
6. Change properties as below
   - Start speed=1

● color=orange

● Shape =cone

○ Degree =0

○ radius=0.3 to 0.5

7. Add the Empty game object and add box Collider as component

8. Add tag name End in empty game object

9. Create c# script and attach it to character

10. Open script in VS code and write code

```csharp
using System.Collections;
using System.Collections.Generic;
using Unity.VisualScripting;
using UnityEngine;

public class FirstLab : MonoBehaviour
{
    public float speed = 100f;
    public ParticleSystem Particles;
    private void Update()
    {
        // Move the capsule forward in the Z direction
        if(Input.GetKeyDown(KeyCode.W))
        {
            transform.Translate(Vector3.forward * speed * Time.deltaTime);
        }
        if(Input.GetKeyDown(KeyCode.A))
        {
            transform.Translate(Vector3.left * speed * Time.deltaTime);
        }
        if(Input.GetKeyDown(KeyCode.D))
        {
            transform.Translate(Vector3.right * speed * Time.deltaTime);
        }
    }

    private void OnCollisionEnter(Collision collision)
    {

        if (collision.gameObject.tag=="End")
        {
            Particles.Play(); // Activate particles
        }
    }
}
```

11. Run and check character movement.