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Assignment-3

**Assignment Title-** Develop a scene in Unity that includes: i. a cube, plane and sphere, apply transformations on the 3 game objects. ii. add a video and audio source.

Solution-

To Create a Cube, Plane, and Sphere:

* Open Unity and create a new 3D project.
* Right-click in the Hierarchy panel and select "3D Object" -> "Cube" to create a cube.
* Similarly, create a plane and a sphere using the same method. Apply Transformations:
* Select each game object (cube, plane, sphere) in the Hierarchy panel.
* In the Inspector panel, you can apply transformations like position, rotation, and scale to each object. For example, you can change the position by adjusting the X, Y, and Z values under the Transform component.

Another method is we can add C# script that we can attach to a GameObject in your Unity project to handle the transformations of the cube, plane, and sphere:

using UnityEngine;

public class Transformations : MonoBehaviour

{

public Transform cubeTransform;

public Transform planeTransform;

public Transform sphereTransform;

void Start()

{

cubeTransform.position = new Vector3(0, 1, 0);

cubeTransform.rotation = Quaternion.Euler(45, 0, 0);

cubeTransform.localScale = new Vector3(2, 2, 2);

planeTransform.position = new Vector3(0, 0, 0); planeTransform.rotation = Quaternion.identity;

planeTransform.localScale = new Vector3(5, 1, 5);

sphereTransform.position = new Vector3(2, 1, 0);

sphereTransform.rotation = Quaternion.Euler(0, 90, 0);

sphereTransform.localScale = new Vector3(1.5f, 1.5f, 1.5f);

}

void Update()

{

}

}