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CLASS: FYMCA-B SUBJECT: AR-VR ROLLNO: 30

Assignment-4

**Assignment Title-** Develop a scene in Unity that includes a cube, plane and sphere. Create a new material and texture separately for three Game objects. Change the colour, material and texture of each Game object separately in the scene. Write a C# program in visual studio to change the colour and material/texture of the game objects dynamically on button click.

Solution-

using UnityEngine;

public class ChangeColorAndMaterial : MonoBehaviour

{

public Material cubeMaterial; public Material planeMaterial;

public Material sphereMaterial;

public Texture cubeTexture; public Texture planeTexture;

public Texture sphereTexture;

private Renderer cubeRenderer; private Renderer planeRenderer;

private Renderer sphereRenderer;

void Start()

{

cubeRenderer = GameObject.Find("Cube").GetComponent<Renderer>();

planeRenderer = GameObject.Find("Plane").GetComponent<Renderer>(); sphereRenderer=GameObject.Find("Sphere").GetComponent<Renderer>();

cubeRenderer.material = cubeMaterial;

planeRenderer.material = planeMaterial;

sphereRenderer.material = sphereMaterial;

cubeRenderer.material.mainTexture = cubeTexture;

planeRenderer.material.mainTexture = planeTexture;

sphereRenderer.material.mainTexture = sphereTexture;

}

public void ChangeColor(Color color)

{

cubeRenderer.material.color = color; planeRenderer.material.color = color;

sphereRenderer.material.color = color;

}

public void ChangeMaterialAndTexture(Material material, Texture texture)

{

cubeRenderer.material = material; planeRenderer.material = material;

sphereRenderer.material = material;

cubeRenderer.material.mainTexture = texture; planeRenderer.material.mainTexture = texture;

sphereRenderer.material.mainTexture = texture;

}

}