Aim: Develop a scene in Unity that includes a sphere and plane . Apply Rigid body component, material and Box collider to the game Objects.Write a C# program to grab and throw the sphere using vr controller

Theory:

To create a scene in Unity where you can grab and throw a sphere using a VR controller, several important concepts and components need to be understood:

1. Unity Scene Development:
   - Unity is a powerful game development engine that allows you to create 3D scenes and games.
   - You can use Unity's Scene view to design and build your virtual environment, which includes adding game objects like the sphere and plane.

2. Rigidbody Component
   - The Rigidbody component is essential for simulating the physics of objects in Unity.
   - It enables game objects to respond to forces like gravity and allows them to interact with the physics engine.
   - When attached to a game object, it can be used to control the object's movement, rotation, and collision responses.

3.Materials:
   - Materials are assets in Unity that determine the visual properties of an object, including color, texture, and shader properties.
   - You can create materials to define how the sphere and plane look within your scene.

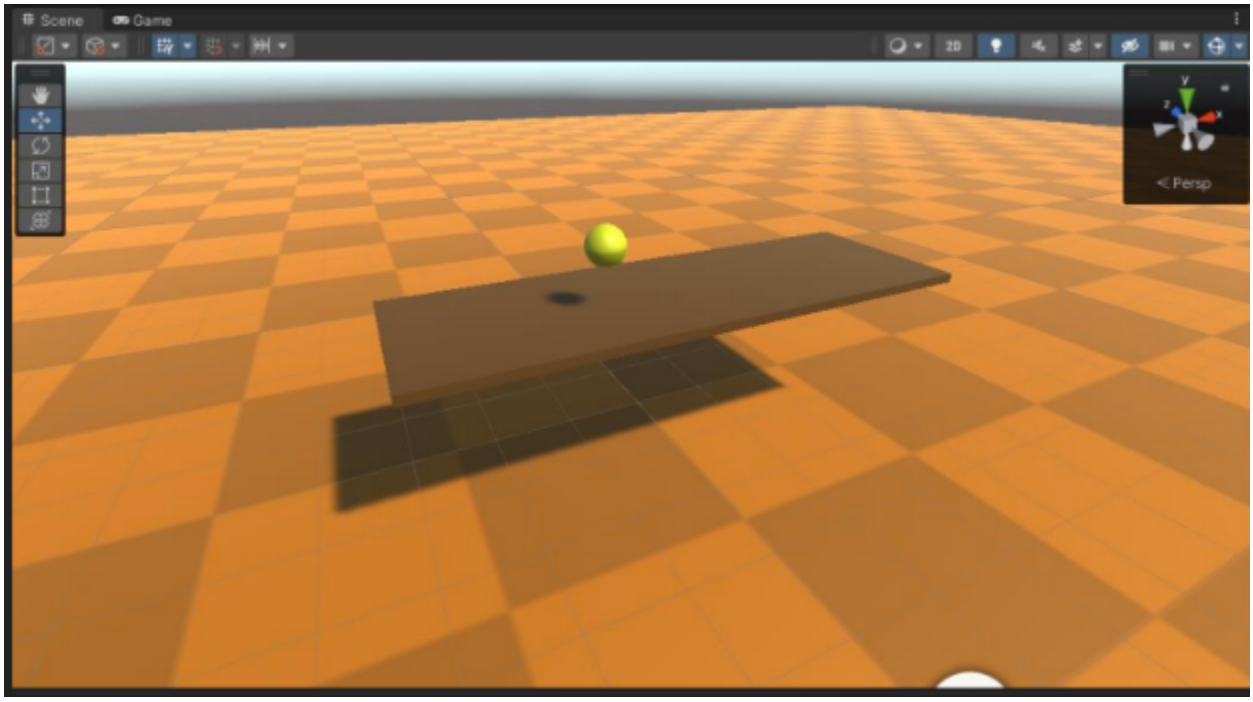
4. Box Collider:
   - The Box Collider is a component used to define the collision shape of a 3D object.
   - It can be added to game objects to detect collisions and interactions with other objects in the scene.

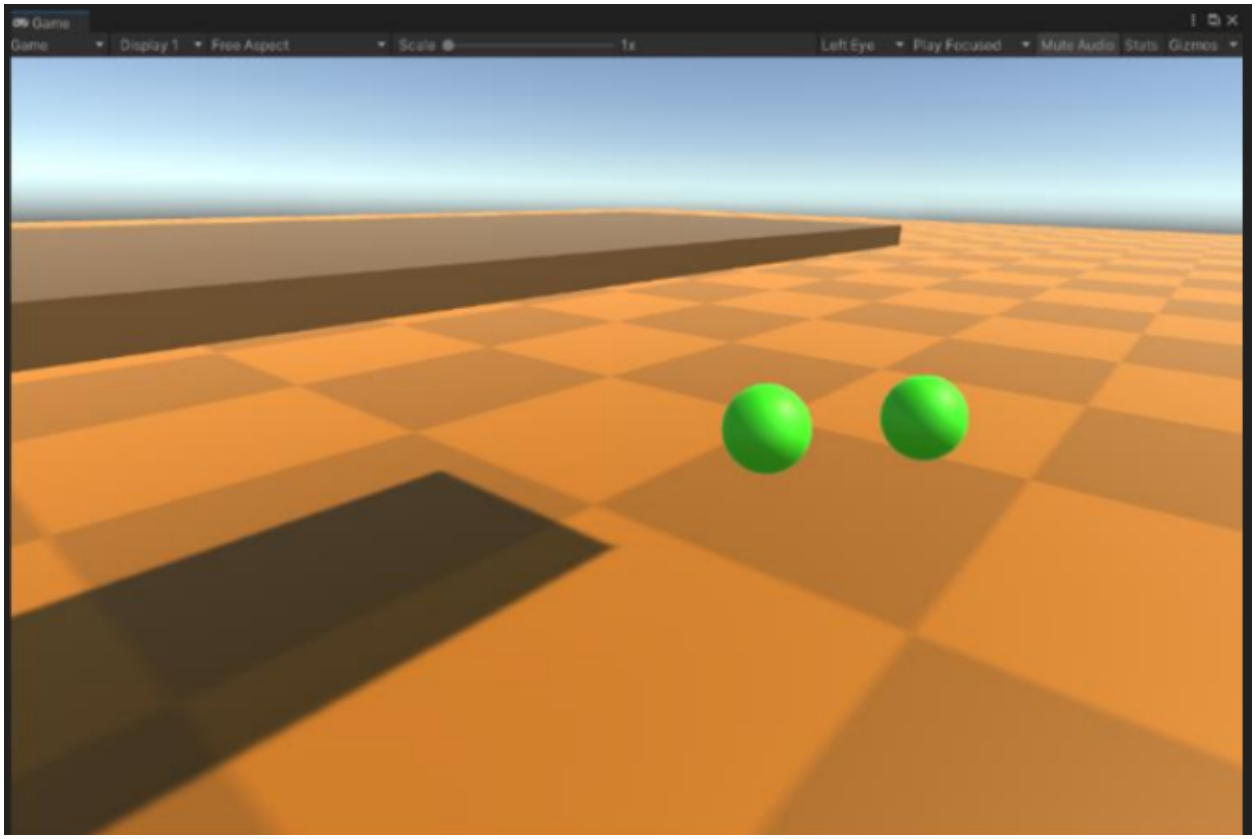
5. C# Programming:
   - C# scripts are used in Unity to add interactivity and functionality to game objects.
   - To grab and throw the sphere using a VR controller, you need to write C# scripts that interact with the VR controller's input and manipulate the sphere's Rigidbody component.

Procedure :

1. Create a new Unity 3D project.
2. Import VR SDK for your hardware.
3. Import assets (sphere, plane, materials).
4. Create sphere and plane objects.
5. Add Rigid body components to both.
6. Apply materials to objects.
7. Add Box Collider to the sphere.
8. Implement VR controller interaction using provided SDK components.
9. Write a script for picking up and throwing the sphere.
10. Attach the script to the VR controller object.
11. Test the scene in your VR environment.

Results:


Scene
Game
2D
< Persp


Game
Game
Display 1
Free Aspect
Scale
1x
Left Eye
Play Focused
Mute Audio
Stats
Gizmos

Conclusion:

In conclusion, the development of a Unity VR scene that allows you to grab and throw a sphere using a VR controller showcases the powerful capabilities of Unity in the realm of virtual reality and interactivity. By understanding key concepts such as Rigidbody components, materials, and C# scripting, you can create dynamic and engaging VR experiences.The integration of Rigidbody components simulates realistic physics for the sphere, enabling it to respond to external forces and interactions. This brings a level of realism to the VR experience and makes the sphere behave as expected when thrown.The use of C# scripts empowers developers to capture input from the VR controller and apply forces to the sphere, facilitating the interaction. This programming element adds a layer of interactivity and control to the VR scene, enhancing the user's immersion.