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Roll No & Branch:	67 CSE(DS)
Class/Sem:	BE/VII
Experiment No.:	03
Title:	To 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.
Date of Performance:	
Date of Submission:	
Marks:	
Sign of Faculty:	

Aim :-

To develop a scene in Unity that includes:

i. a cube, plane and sphere, apply transformations on the 3 game objects.
ii. ii. add a video and audio source.

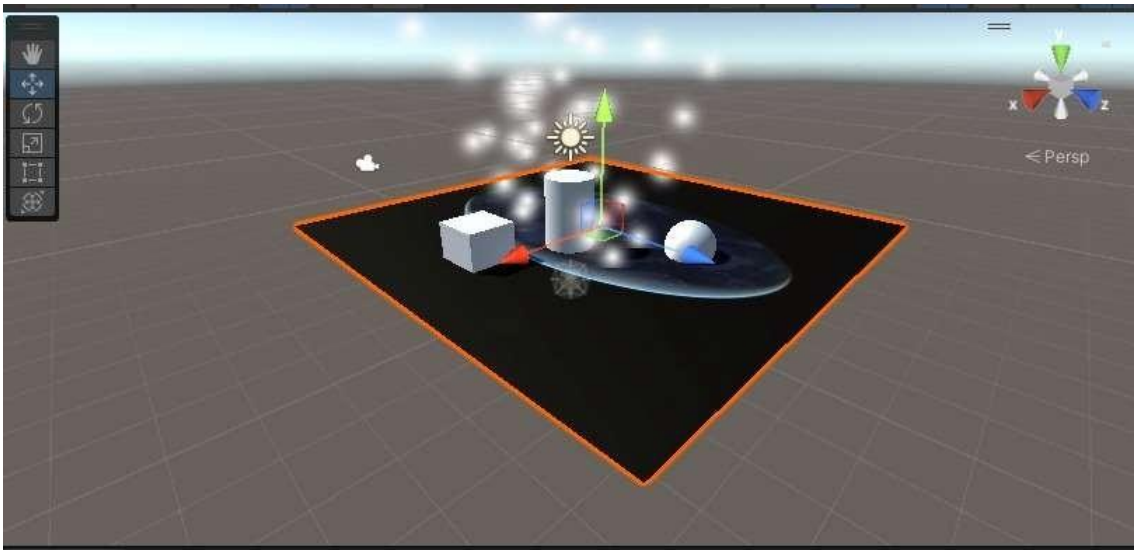
Theory:-

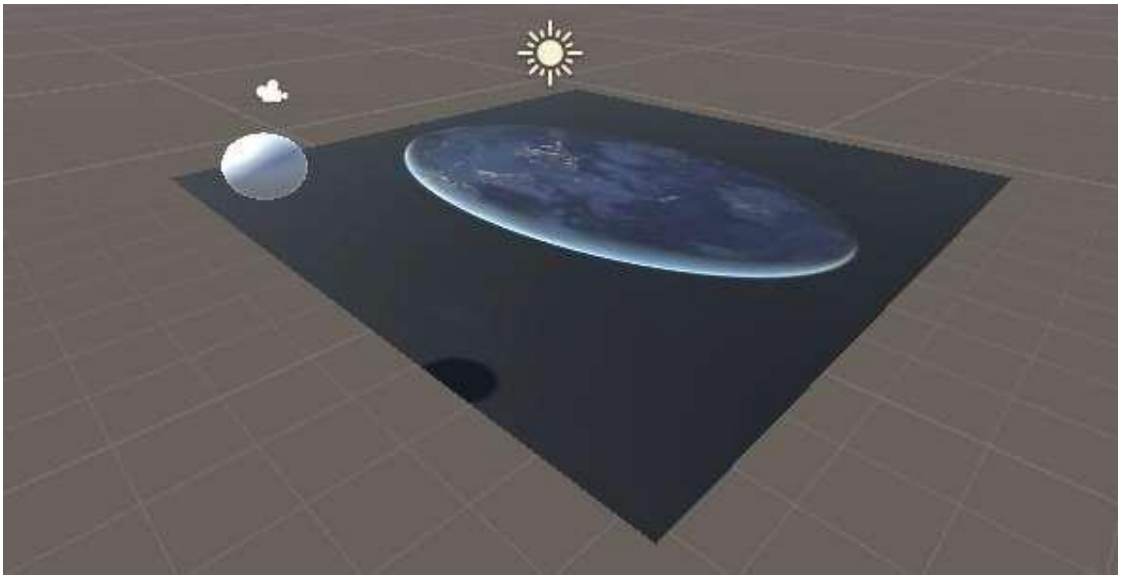
In Unity, you can create a dynamic scene by adding various game objects and components. In this context, we aim to create a scene that involves a cube, plane, and sphere, and apply transformations to these objects. Transformations, including translation, rotation, and scaling, alter the position, orientation, and size of game objects, respectively. This manipulation of transformations is fundamental for positioning and animating objects within the Unity environment. Additionally, we will add a video and audio source to enhance the scene's interactivity. A video source allows for the playback of video content within the scene, enriching the visual experience. Meanwhile, an audio source provides the capability to integrate sound and music, further engaging users in the immersive environment

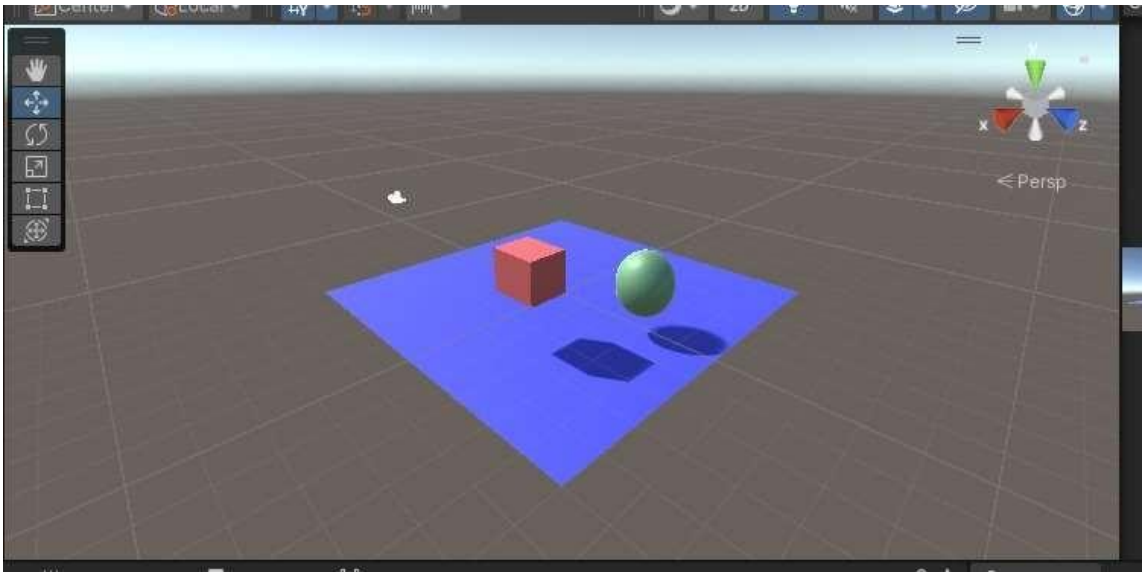
Procedure:-

1. **Create Project**: Start a new 3D Unity project and ensure you have the required Unity version and video/audio packages installed.
2. **Create & Position Objects**: In the Hierarchy, create game objects (Cube, Plane, Sphere) and adjust their properties.
3. **Import Assets**: Import video (MP4 or WebM) and audio files into the project's "Assets" folder.
4. **Create Materials**: Generate materials for game objects by right-clicking in the Project window, then assign these materials in the Inspector.
5. **Add Video & Audio Components**: For video, create a Video Player component and assign the video clip. For audio, add an Audio Source component and assign the audio clip.
6. **Configure Playback**: Write scripts if needed to control video and audio playback.
7. **Testing**: Save the scene and press Play to verify video/audio playback, object transformations, and material settings.

Result:-







Conclusion:- In Unity, we successfully created a scene comprising a cube, plane, and sphere, applying various transformations to these game objects, such as scaling, rotating, and translating, which allowed for dynamic changes in their positions and appearances. In addition, we incorporated a video source and an audio source, enhancing the scene's multimedia capabilities. This experiment demonstrates the versatility of Unity in building interactive and multimedia-rich environments. making it a valuable tool for game development, simulations, and a wide range of interactive applications.