

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.

 **Prerequisites:**

- Install Unity Hub from <https://unity.com/download>.
 - Inside Unity Hub, install the latest version of Unity Editor (e.g., 2022.x or 2023.x).
 - Make sure to include Video and Audio modules during installation.
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Step 1: Create a New Unity Project

1. Open Unity Hub.
 2. Click “New Project”.
 3. Choose the 3D (Core) template.
 4. Name the project, e.g., MyFirstScene.
 5. Choose a location and click Create.
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Step 2: Understand the Unity Interface

You'll see:

- Scene view – where you build your world.
 - Game view – what the player will see.
 - Hierarchy – lists all game objects in your scene.
 - Inspector – edit properties of selected objects.
 - Project – where your assets (videos, audio, models, etc.) are stored.
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Step 3: Add 3D Objects

1. In the Hierarchy, right-click → 3D Object → Cube. Rename it to “MyCube”.
2. Repeat to add:
 - A Plane (base surface).
 - A Sphere.

✅ Step 4: Apply Transformations (Move, Rotate, Scale)

Select each object and modify in the Inspector under Transform:

Example Transform Values:

Select each object and modify in the **Inspector** under Transform:

Example Transform Values:

Object	Position (X, Y, Z)	Rotation (X, Y, Z)	Scale (X, Y, Z)
Plane	0, 0, 0	0, 0, 0	10, 1, 10
Cube	0, 0.5, 0	45, 0, 0	1, 1, 1
Sphere	2, 1, 0	0, 0, 0	1, 1, 1

Tip: Use W, E, and R to switch between Move, Rotate, and Scale tools.

✅ Step 5: Add a Video Source

1. Import a video:
 - Drag a .mp4 file into the Assets panel (bottom).
2. In the Hierarchy, right-click → UI → Raw Image (this creates a Canvas too).
3. Select Raw Image → In the Inspector:
 - Add a Video Player component (click Add Component → search for Video Player).
4. Set:
 - Render Mode: Render Texture.
 - Target Texture: (you'll need to create one next).

Create Render Texture:

1. In the Assets → right-click → Create → Render Texture.
 2. Name it MyRenderTexture.
 3. Assign MyRenderTexture to:
 - Video Player's Target Texture.
 - Raw Image's Texture field.
 4. Drag the video file to the Video Clip slot of the Video Player.
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Step 6: Add an Audio Source

1. Import audio:
 - Drag a .mp3 or .wav file into the Assets.
 2. In the Hierarchy → Right-click → Create Empty → Rename to AudioPlayer.
 3. Select AudioPlayer → Add Component → Audio Source.
 4. Assign the imported audio file to the AudioClip field.
 5. Check Play on Awake if you want it to auto-play.
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Step 7: Save and Play

1. Go to File → Save As → name your scene (e.g., MainScene).
2. Click the Play button on the top toolbar to test your scene.

Optional Tweaks

- Add a Directional Light (if not already there).
- Use Materials to color your objects.
- Adjust the Camera to frame your scene well.