GAME PROGRAMMING

LAB - 8 ASSIGNMENT

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REGISTER NO. : 21BAI1876

➔ **Create a 3D Maze Game Scene**

Design a captivating 3D game scene that incorporates the following mechanics:

1. Maze Environment

Create a visually engaging maze that players can navigate.

2. Goal Point

Place a 3D cube within the maze that serves as the goal point. When the player reaches this point, a message stating “You Won” should be displayed.

3. Enemy Patrol

Implement an enemy that patrols a fixed area within the maze. The enemy's primary role is to block the player from entering specific areas, creating an additional layer of challenge.

4. Player Character

Develop a player character that can move throughout the maze. The objective is to reach the goal point while avoiding obstacles and enemies.

5. Gameplay Challenges

Enhance the game experience with the following challenges:

- ➔ **Health Mechanics: The player's health decreases upon crossing certain boundaries or touching the enemy. If the player's health reaches zero, the character should be destroyed.**

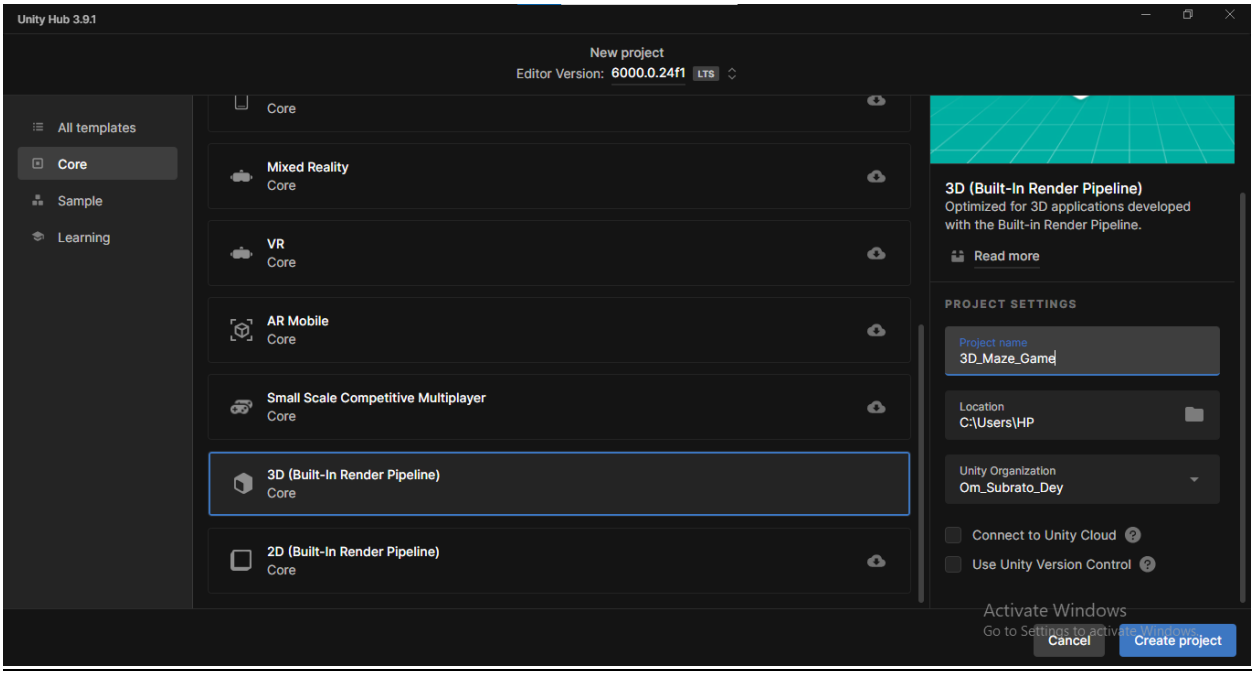
- ➔ **Respawn System: Upon destruction, the player should respawn at a designated position in the maze.**

- ➔ **Life Limit: The player has a total of three lives. After losing all lives, a "Game Over" message should be displayed.**

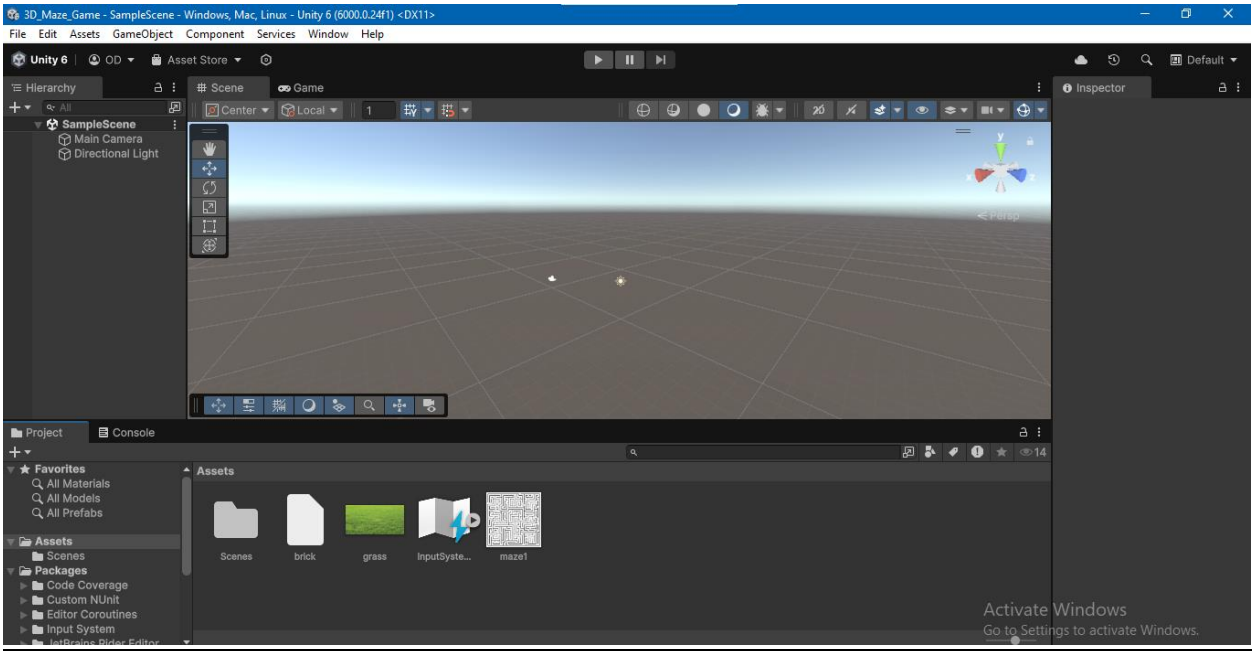
6. 3D Cube Representations

Place 3D cubes to represent the Player, Enemy, and Goal Point, each utilizing a distinct material with different textures to enhance visual differentiation.

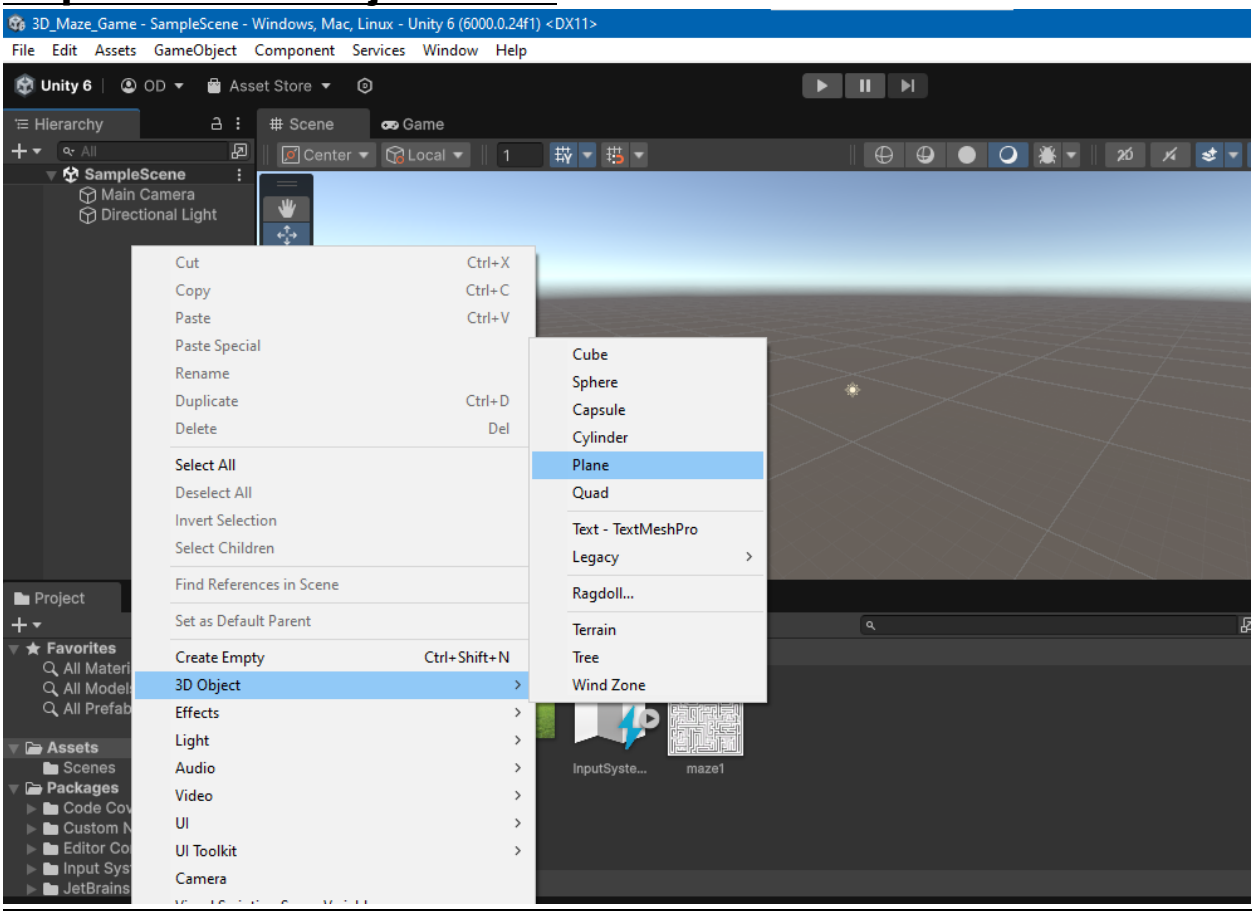
Step 1: Create a 3D Game Scene

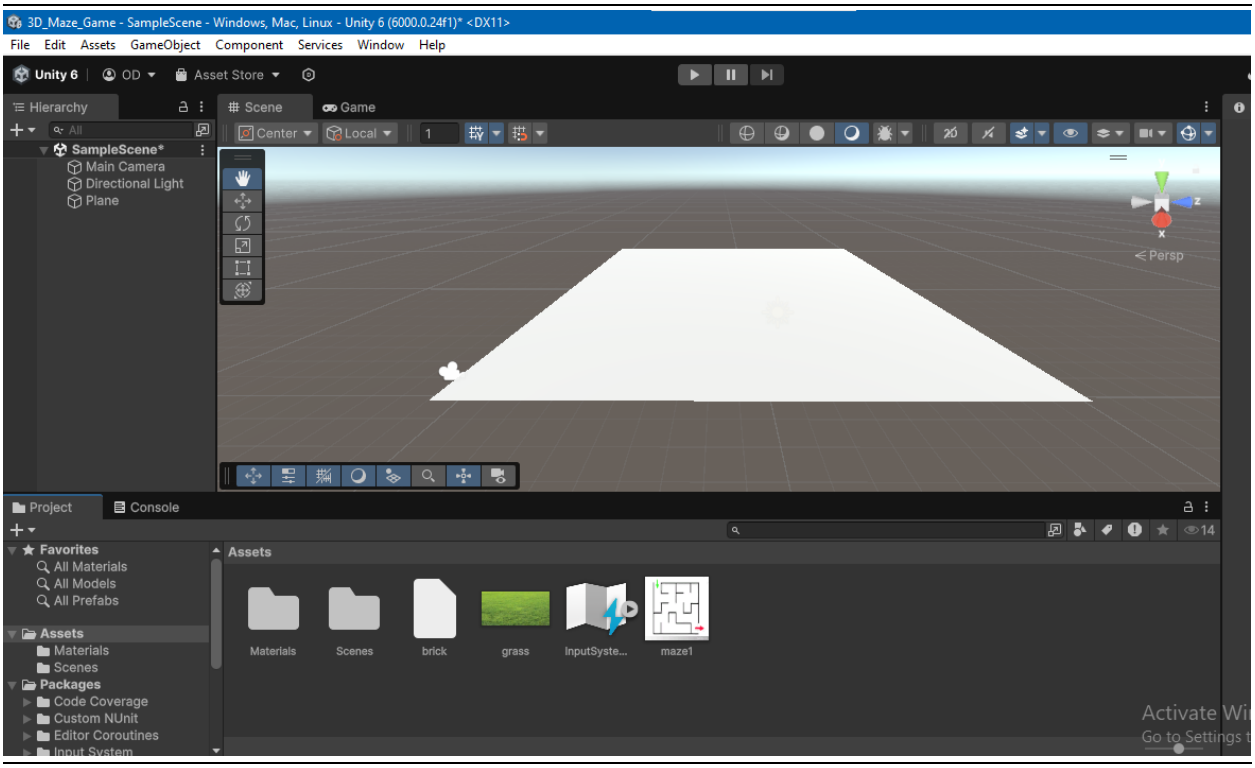


Step 2: Dragging textures under Assets Folder:

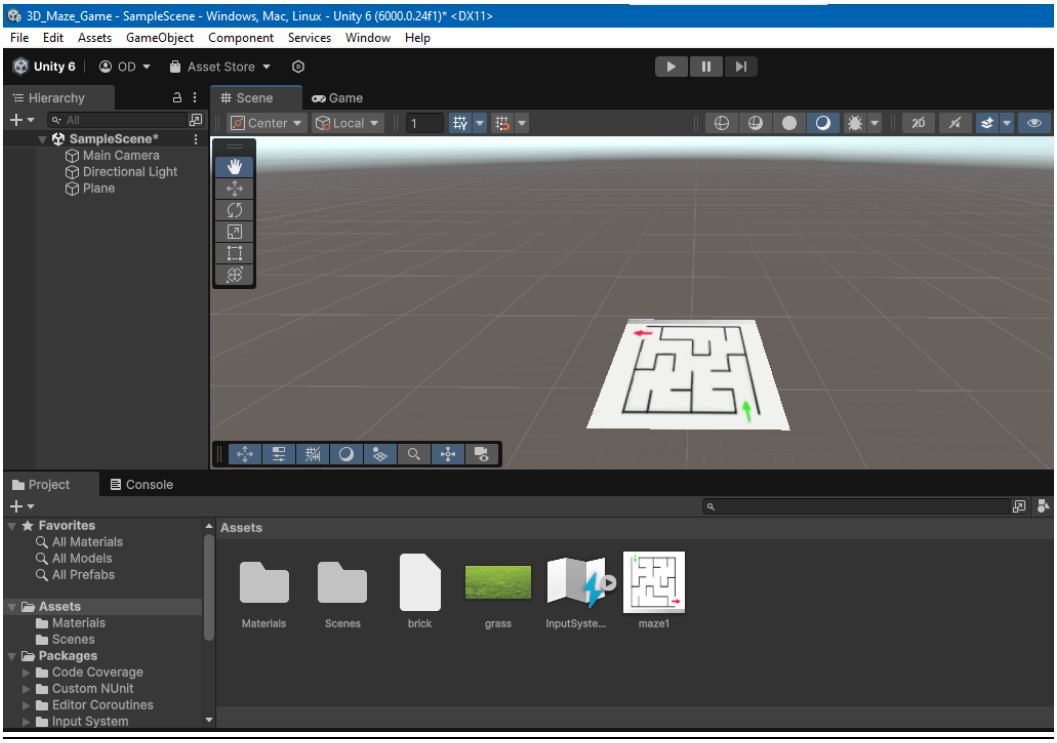


Step 3: Create 3D Object Plane:

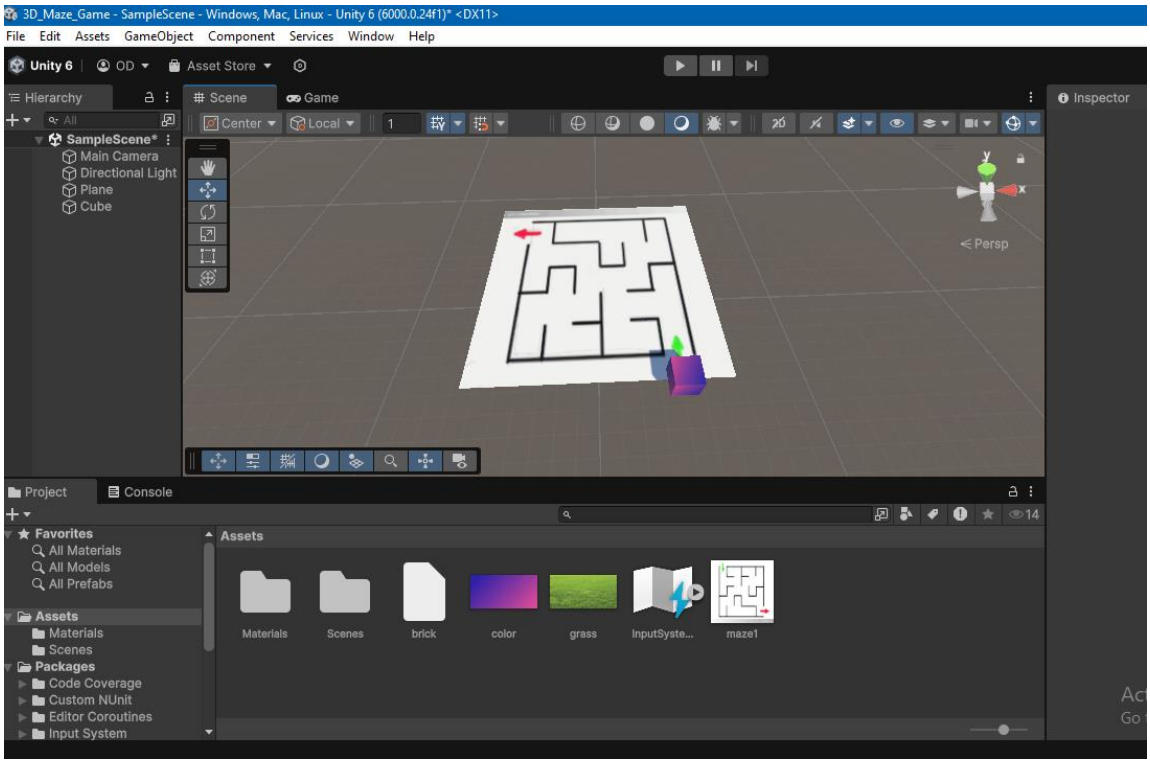




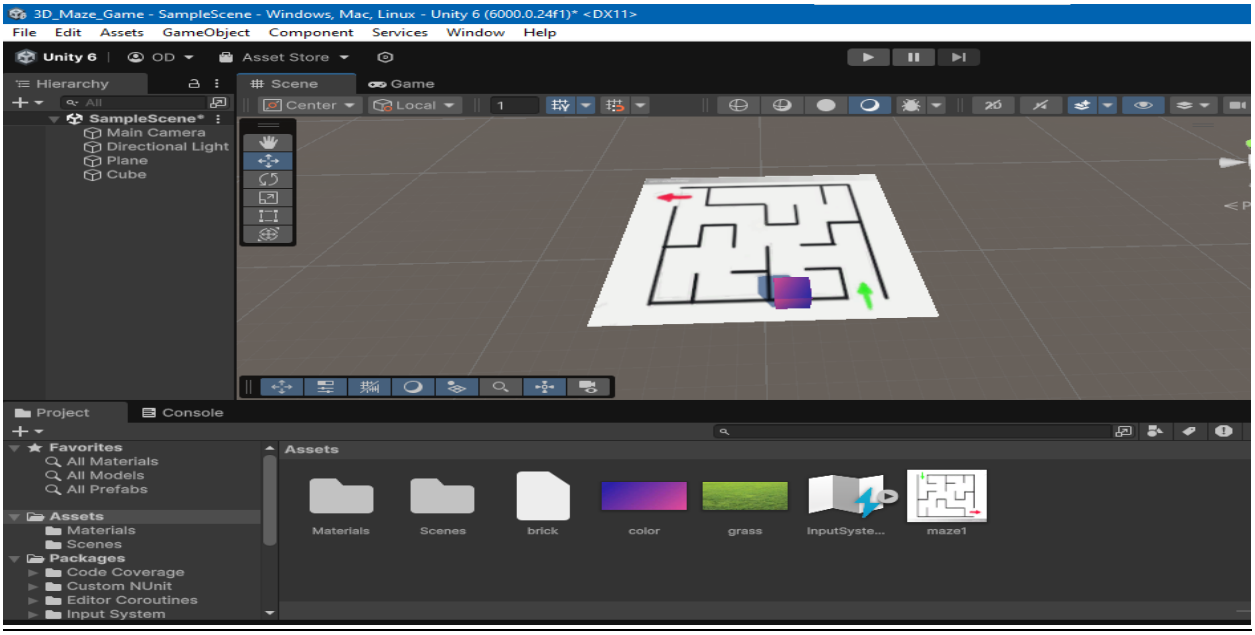
Step 4: Drag Maze Texture to Plane

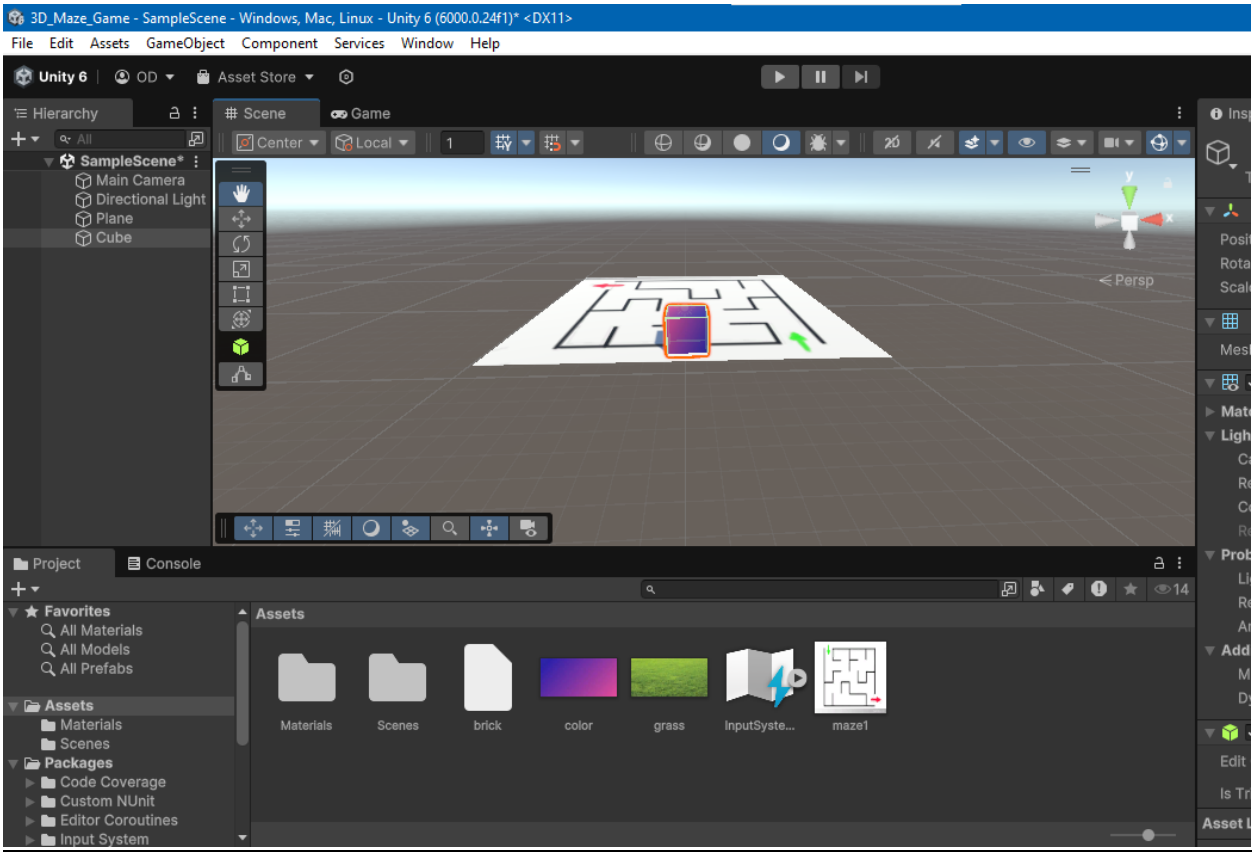


Step 5: Add Cube

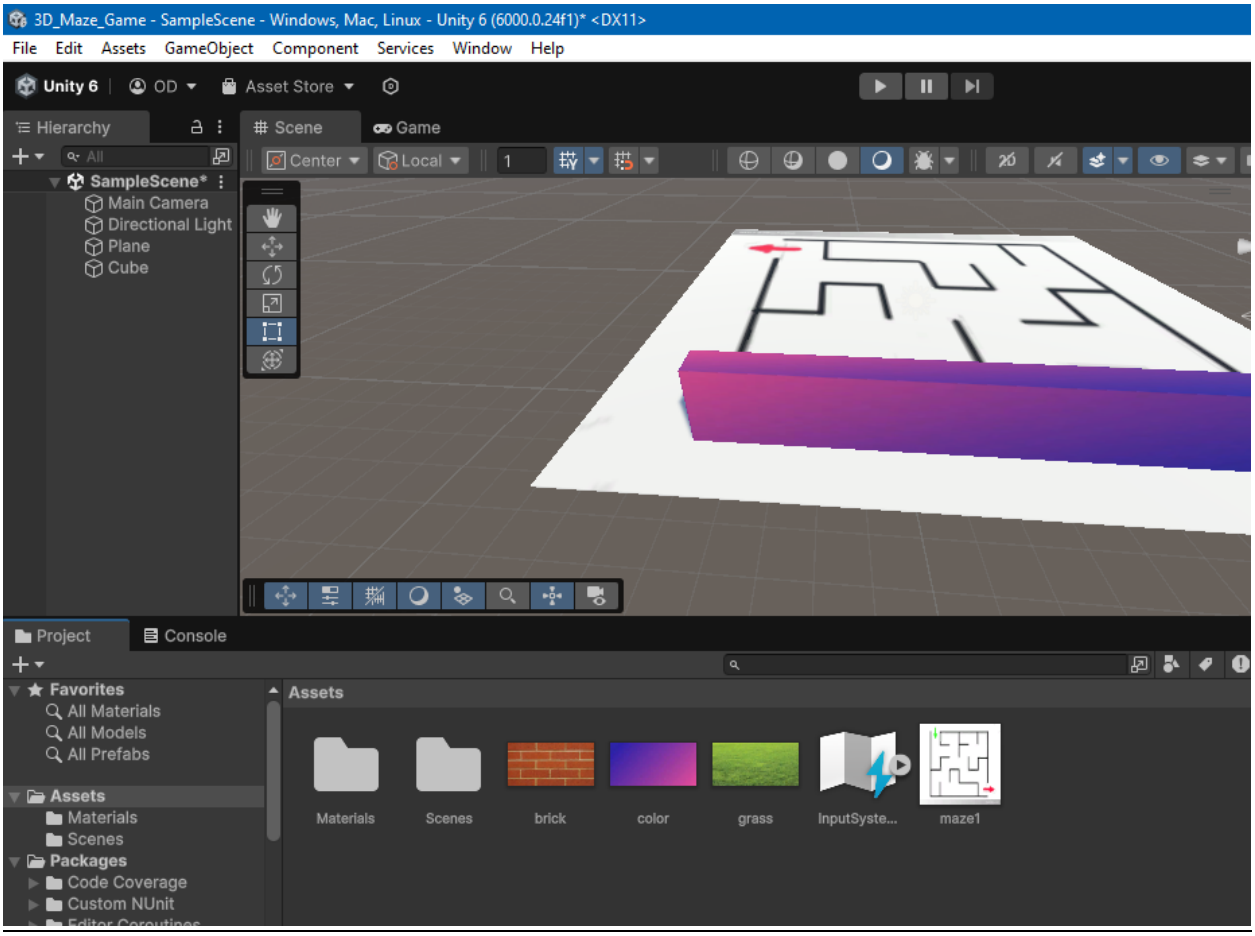


Step 6: Placing on black bar

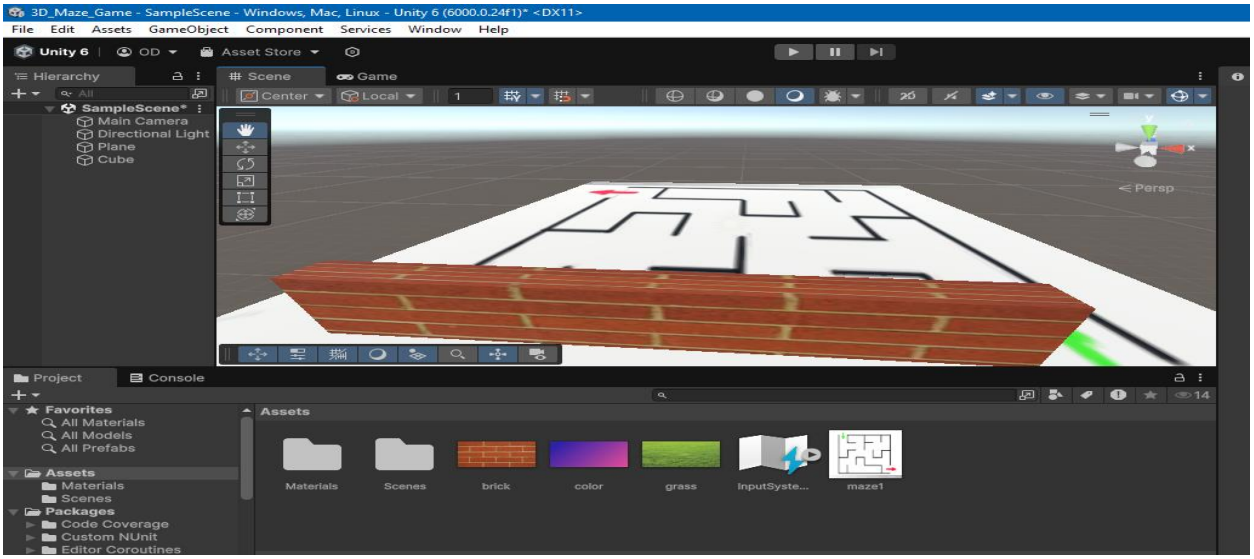




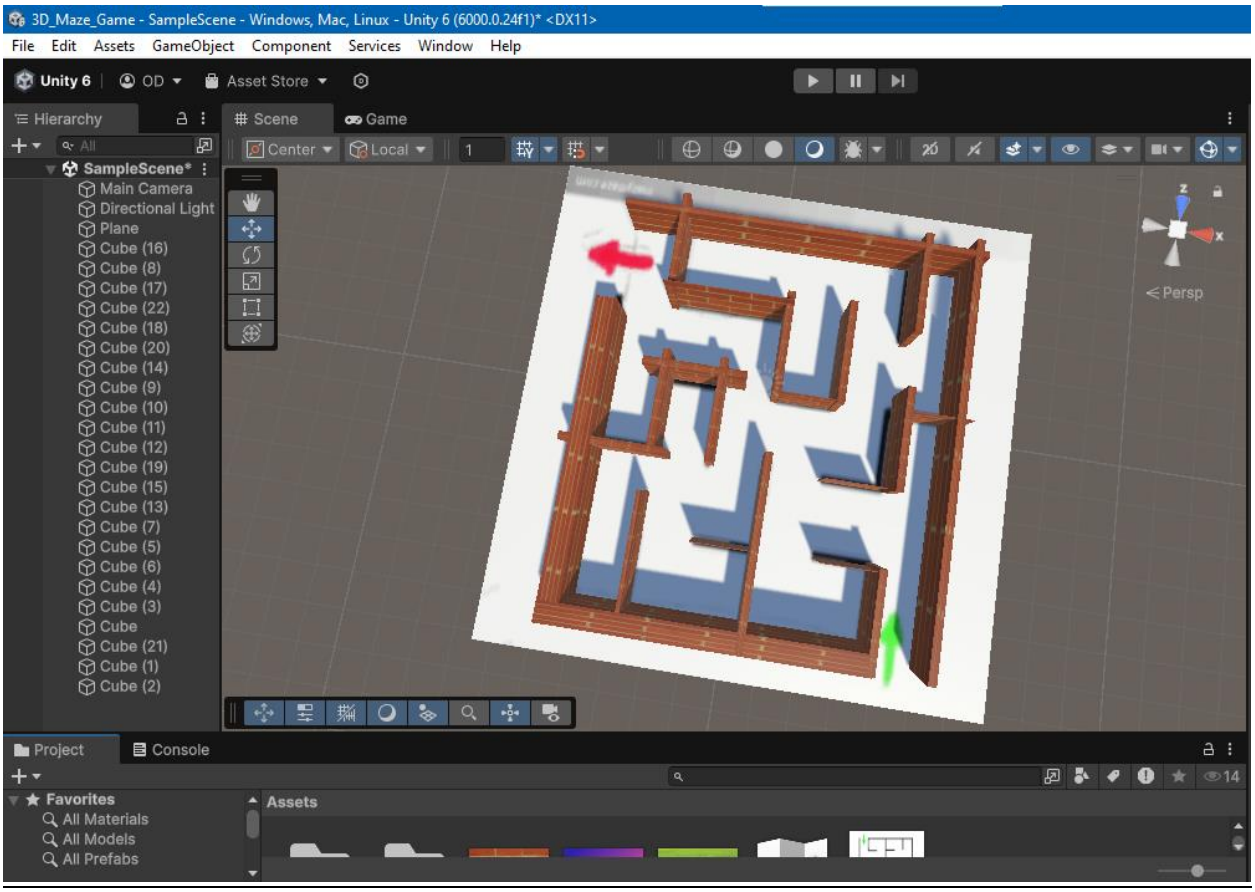
Step 7: Resizing cube as per requirements of desired game



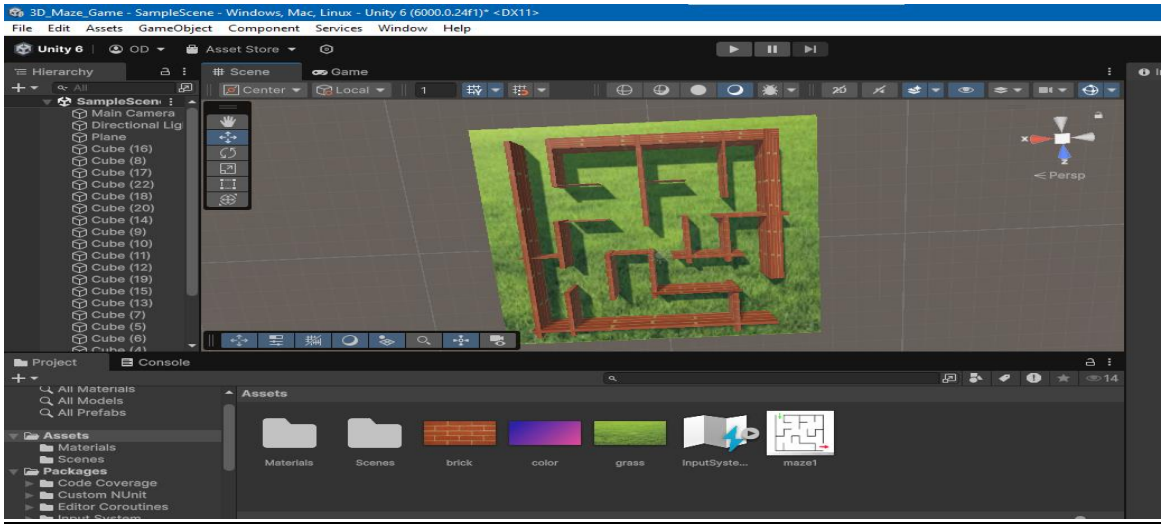
Step 8: Adding Brick texture:



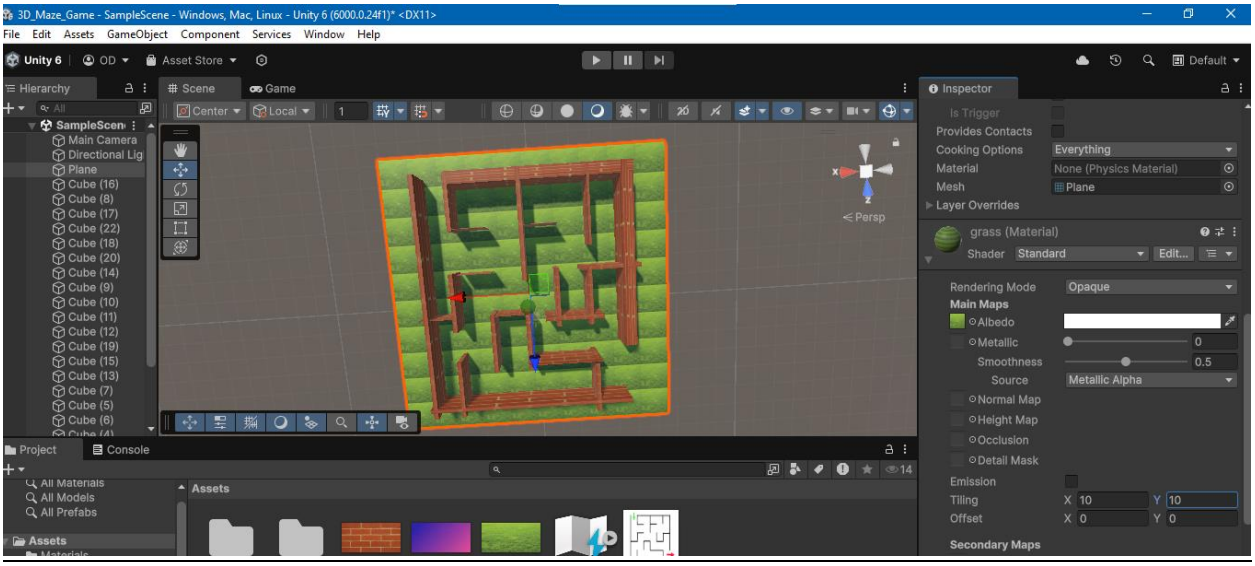
Step 9: Repeat step 7 and 8 till all such brick walls needed made and placed.



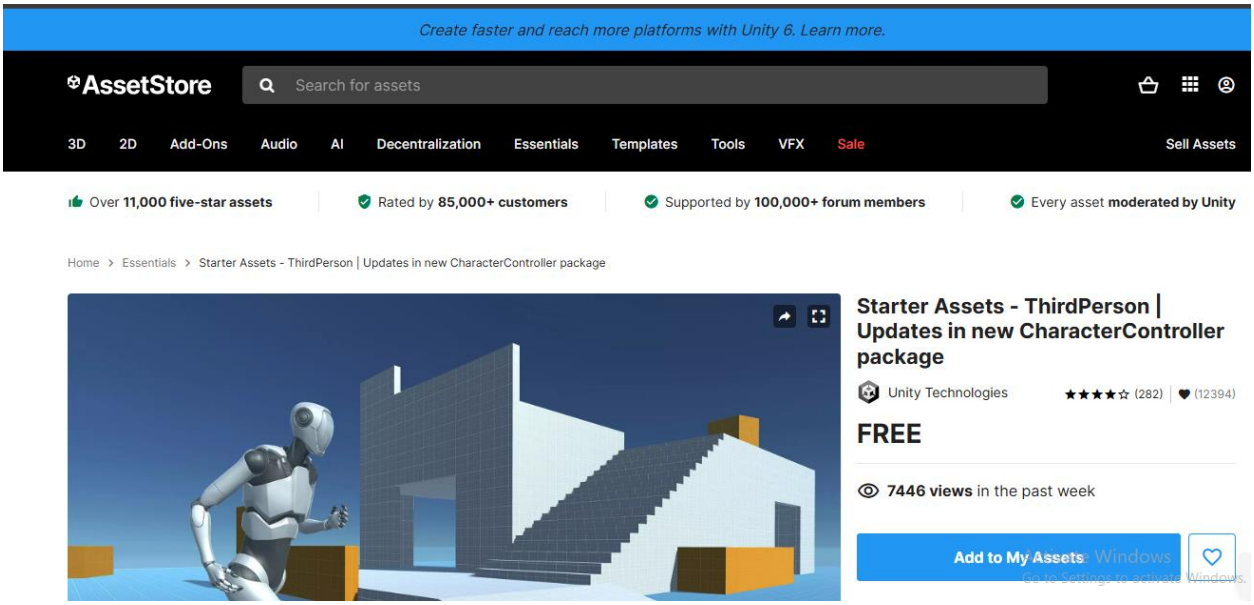
Step 10: Add Grass texture to Plane

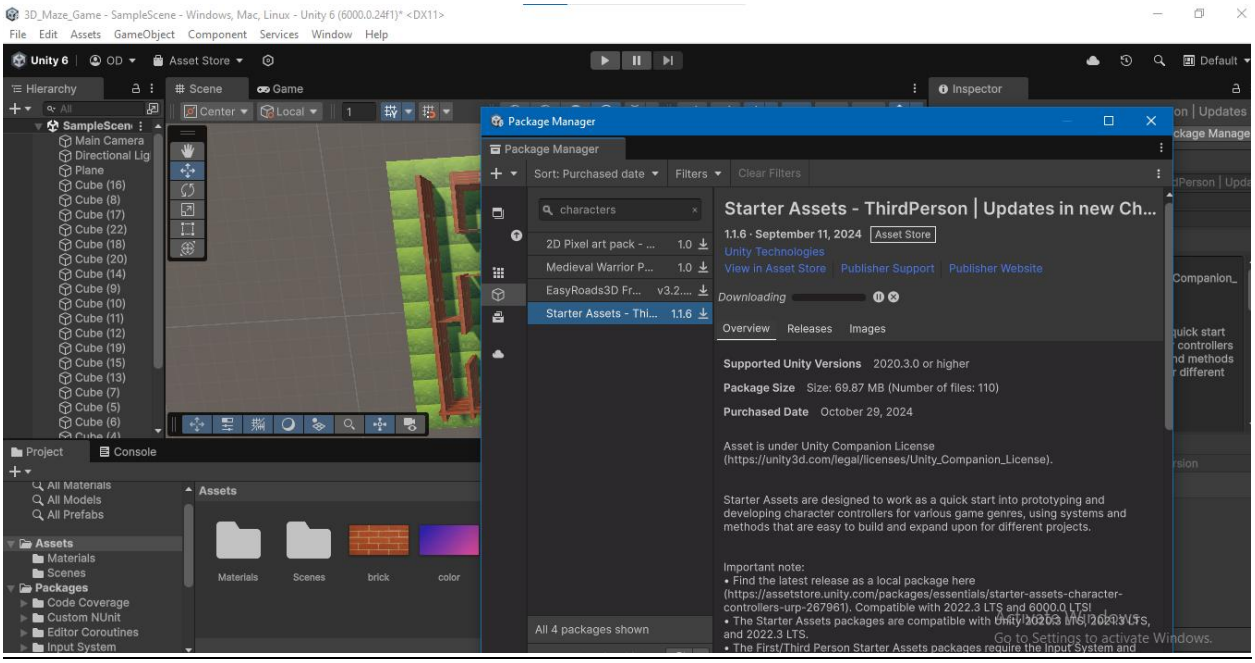


Step 11: Change Tilling settings

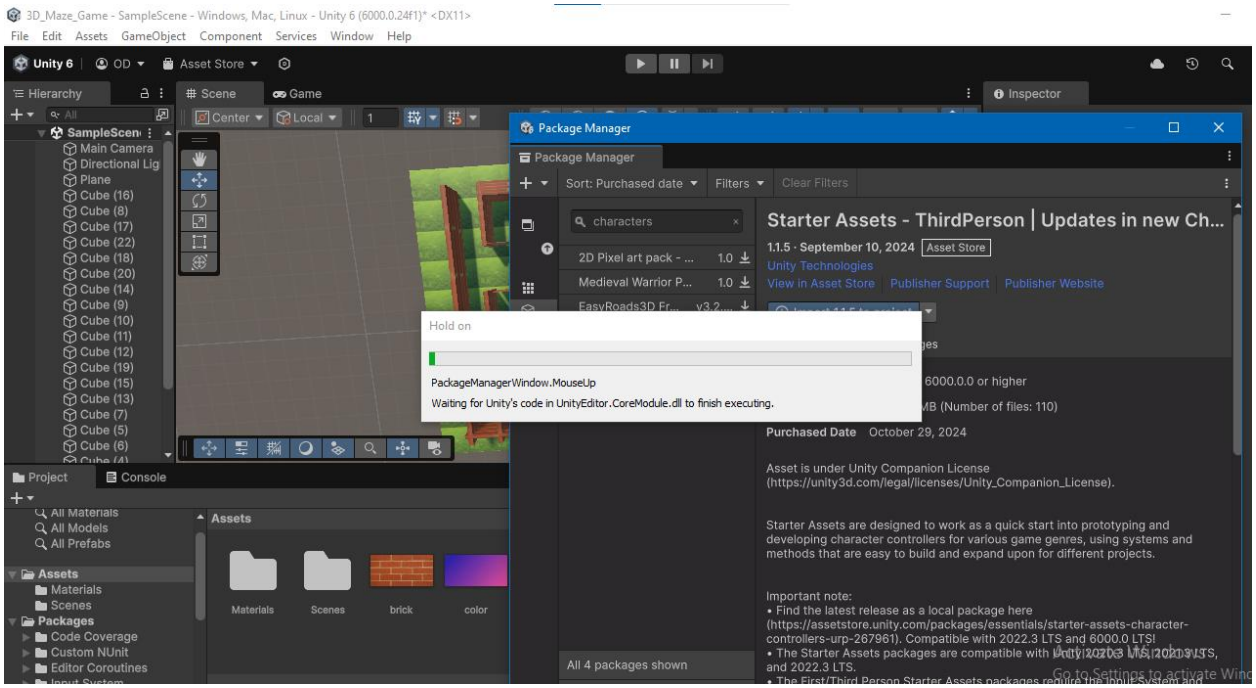


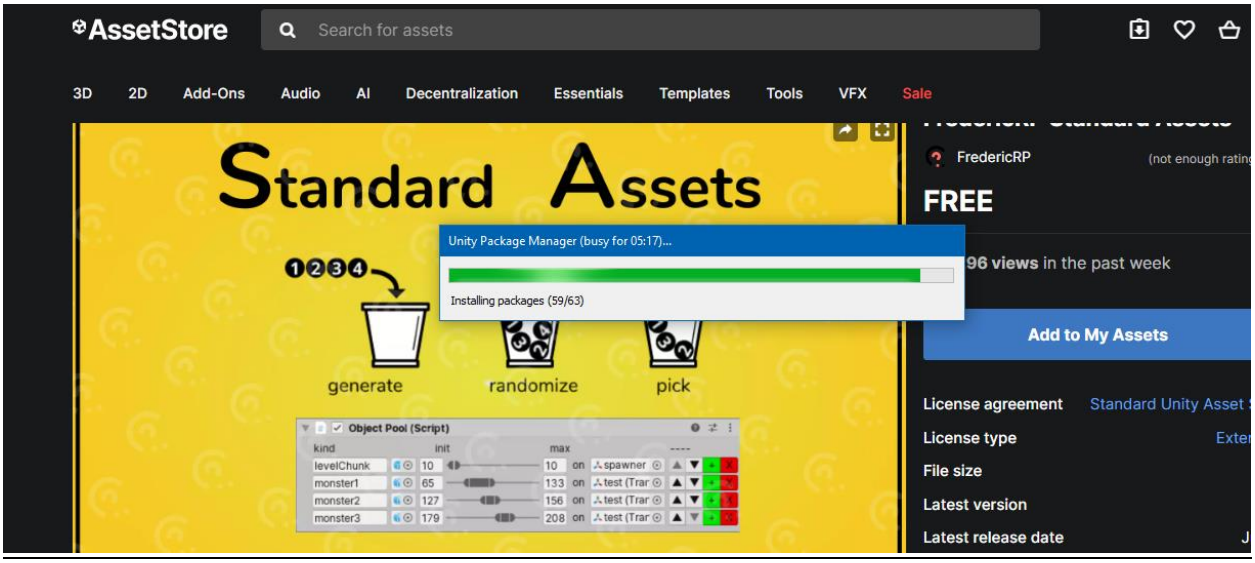
Step 12: Install necessary assets from asset store web

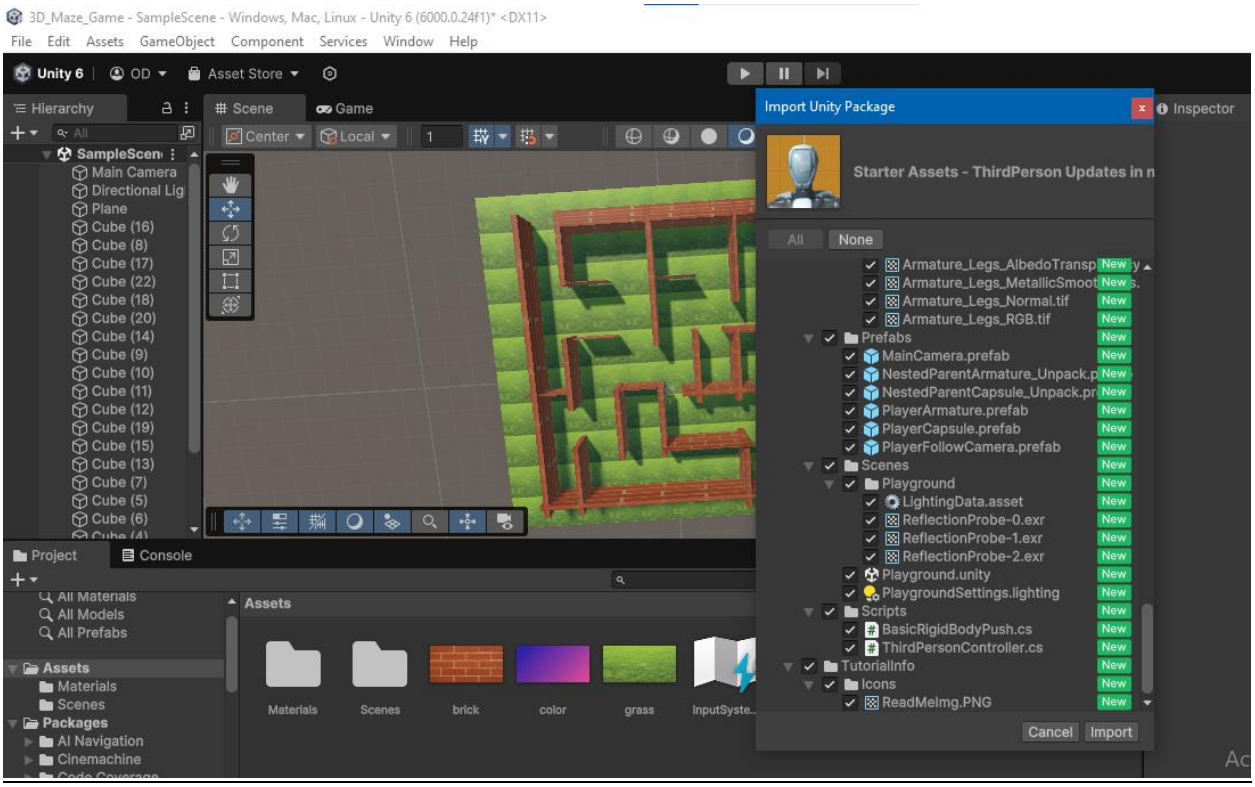




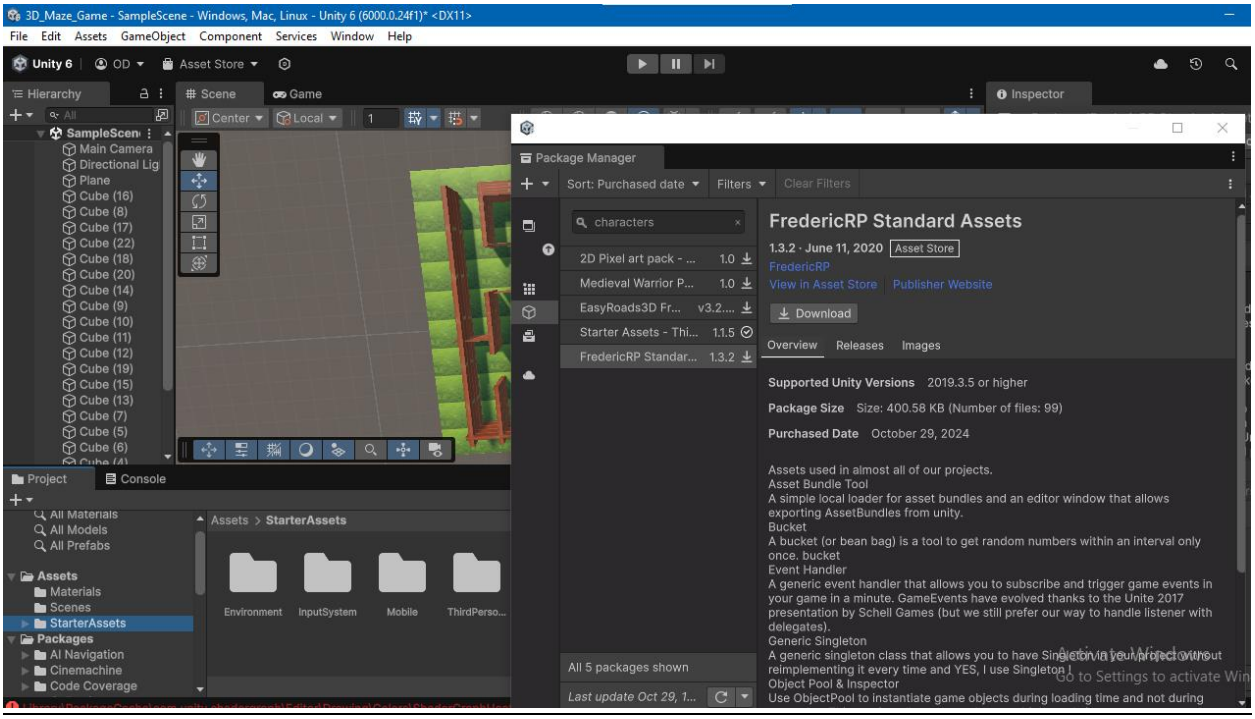
➔ Import to project

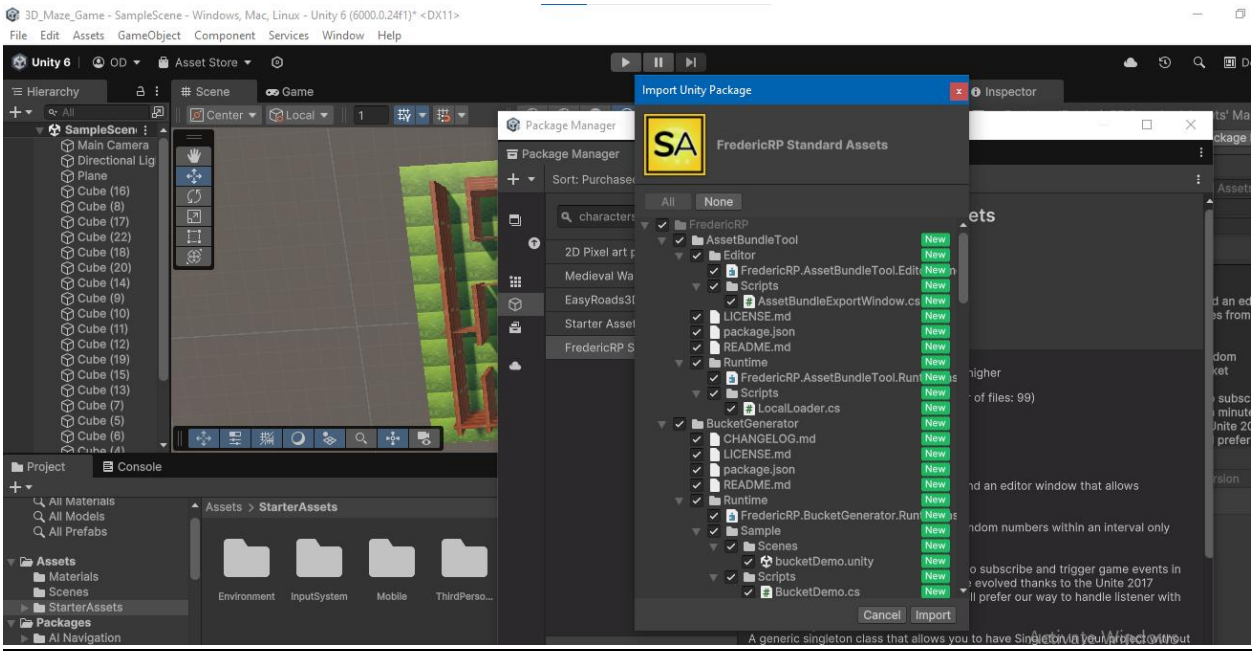



AssetStore
Search for assets
3D
2D
Add-Ons
Audio
AI
Decentralization
Essentials
Templates
Tools
VFX
Sale
Standard Assets
Unity Package Manager (busy for 05:17)...
Installing packages (59/63)
generate
randomize
pick
Object Pool (Script)
FredericRP
FREE
96 views in the past week
Add to My Assets
License agreement
License type
File size
Latest version
Latest release date

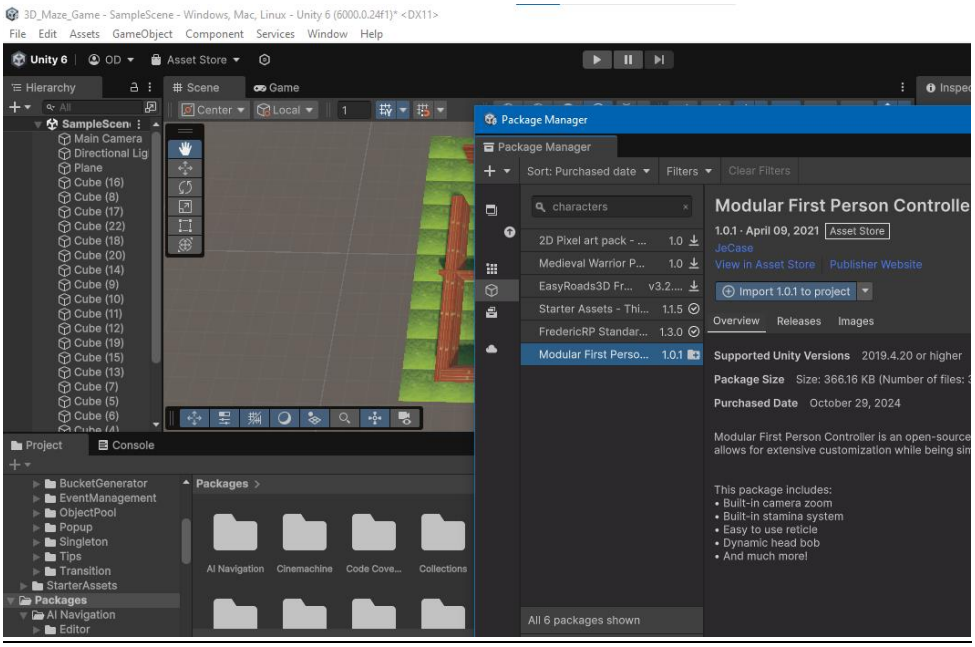

3D_Maze_Game - SampleScene - Windows, Mac, Linux - Unity 6 (6000.0.24f1)* <DX11>
File Edit Assets GameObject Component Services Window Help
Unity 6
Hierarchy
Scene
Game
Inspector
Import Unity Package
Starter Assets - ThirdPerson Updates in n
All
None
Cancel
Import
Project
Console
Assets
Materials
Scenes
brick
color
grass
Packages
AI Navigation
Cinemachine

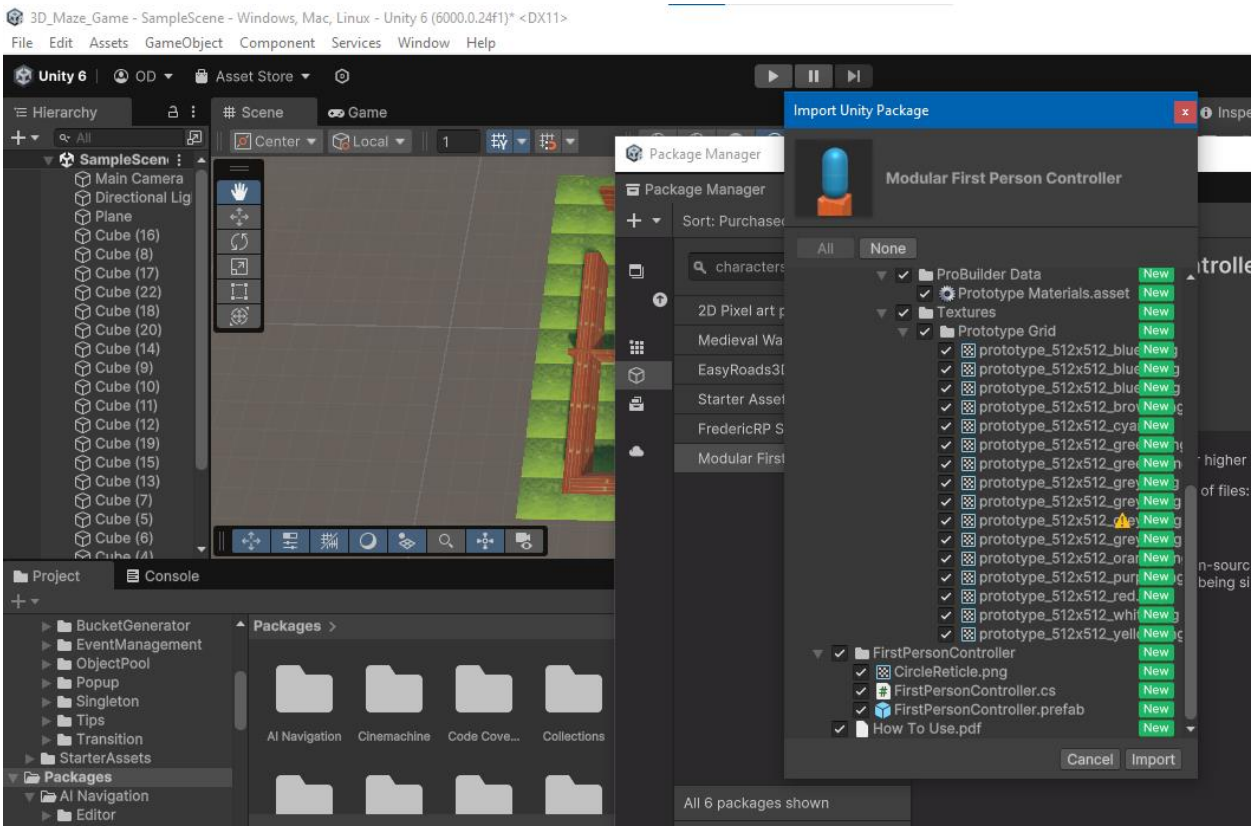
Step 13: Add more assets if required for the game as per need.



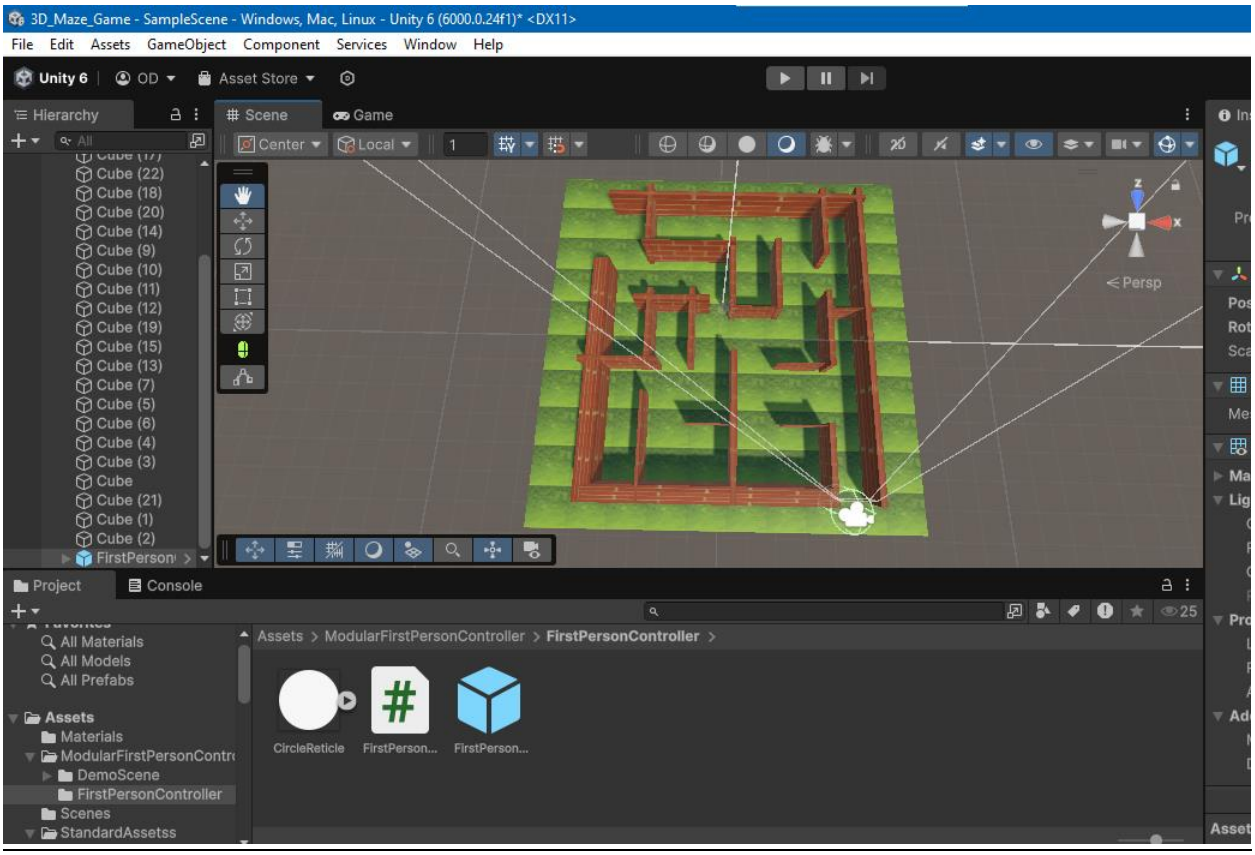


Step 14: Add first person controller

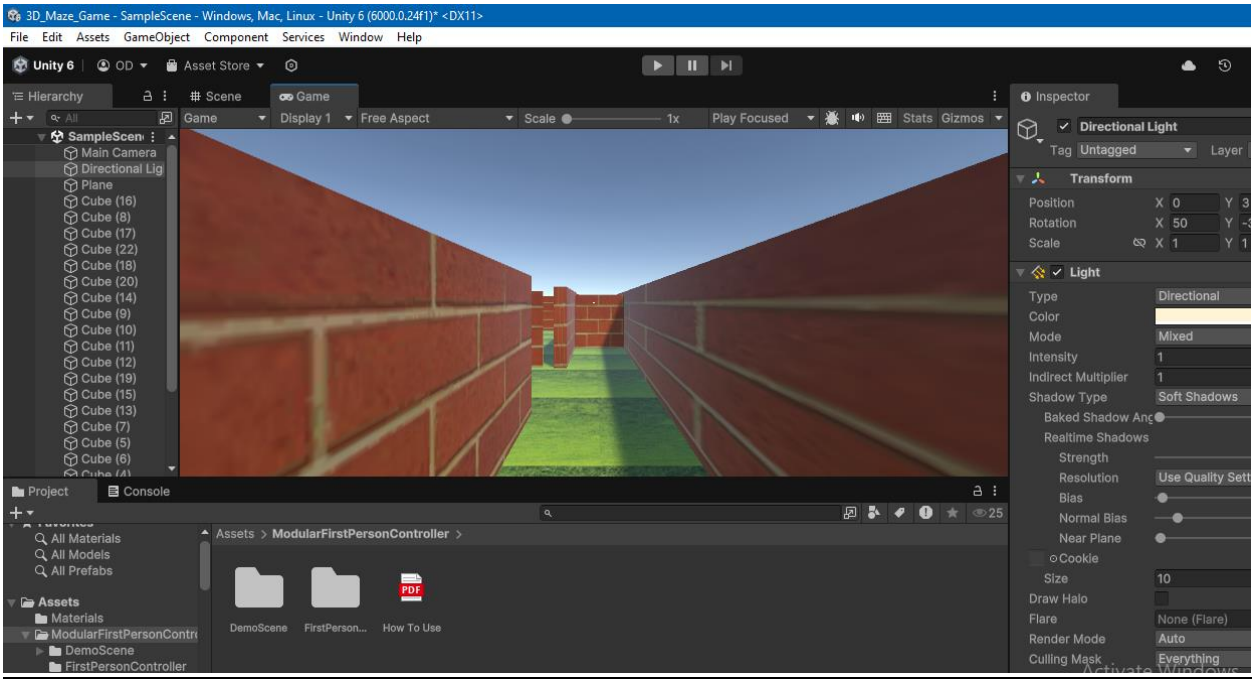




Step 15: Add first person controller to scene



Step 16: Check view of gameplay initially



With the above steps, we have successfully created a maze game.