Snake Game

Submitted by -

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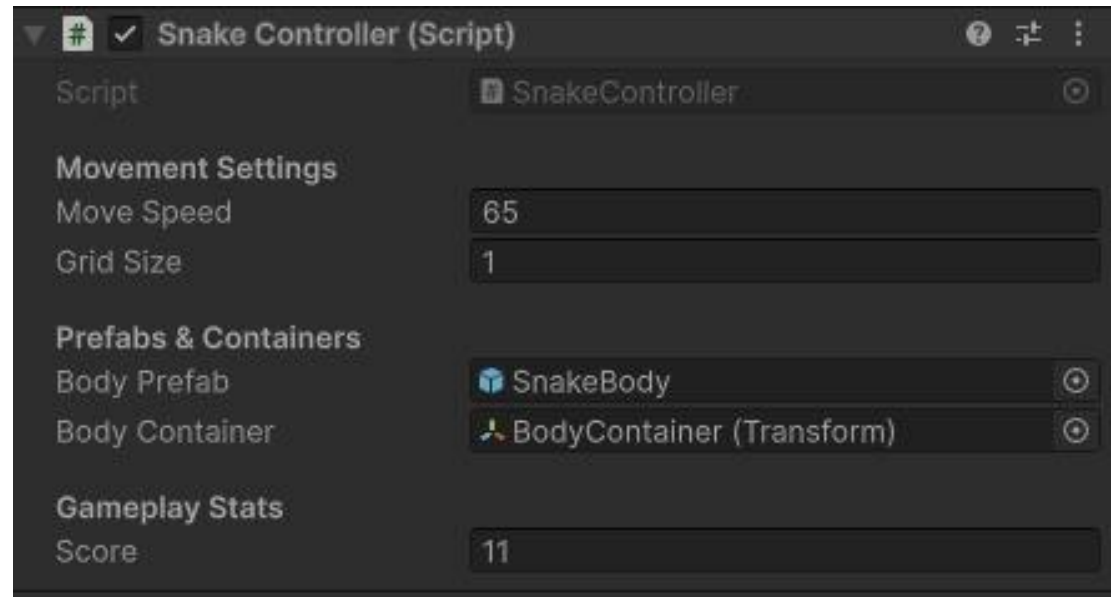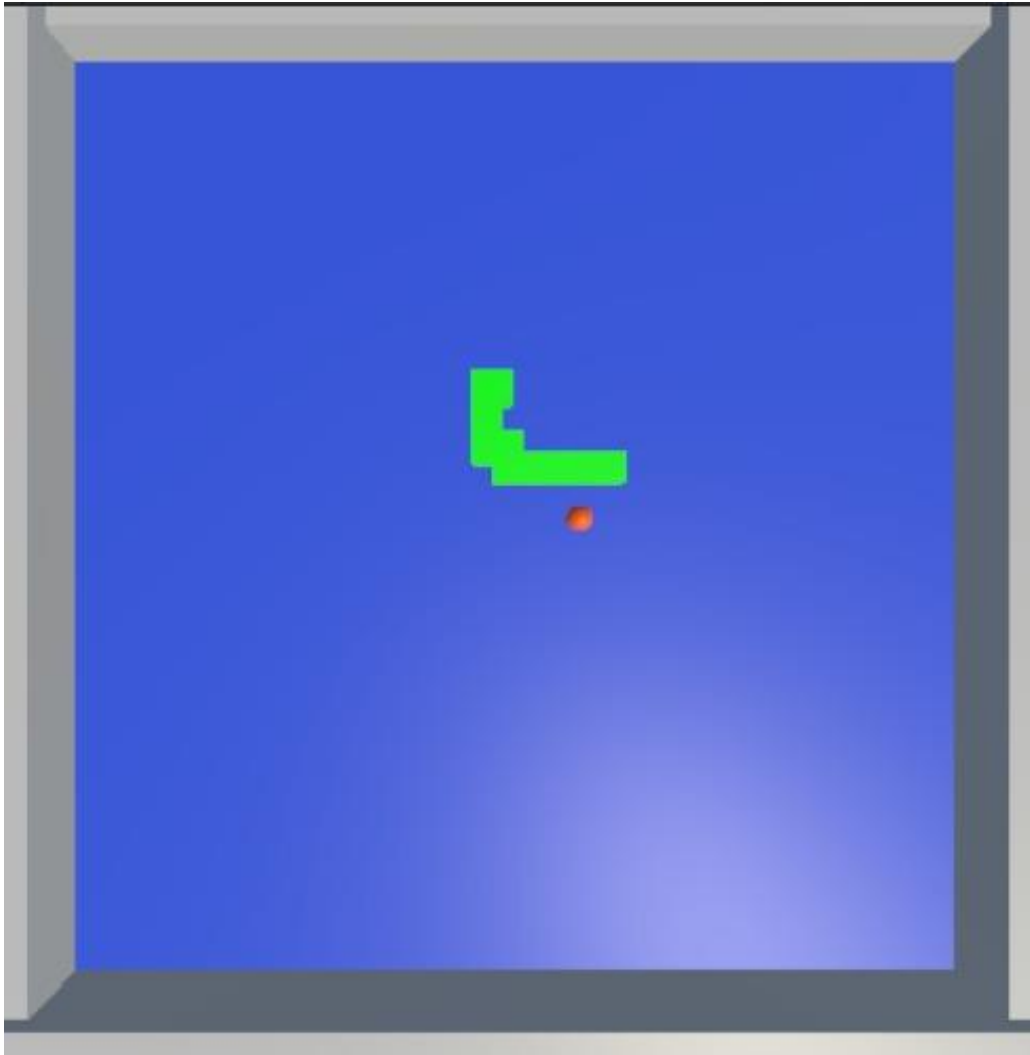Submitted to -

Dr. Preetjot Kaur

Project Overview

- A 2D version of the **classic Snake Game** made in **Unity Engine**.
- The snake moves inside a 2D arena, collects food, and grows in size.
- The player controls the snake's direction using keyboard input (W, A, S, D).
- The game restarts when the snake hits a wall.
- Designed to demonstrate **basic game logic**, **C# scripting**, and **object interaction**.
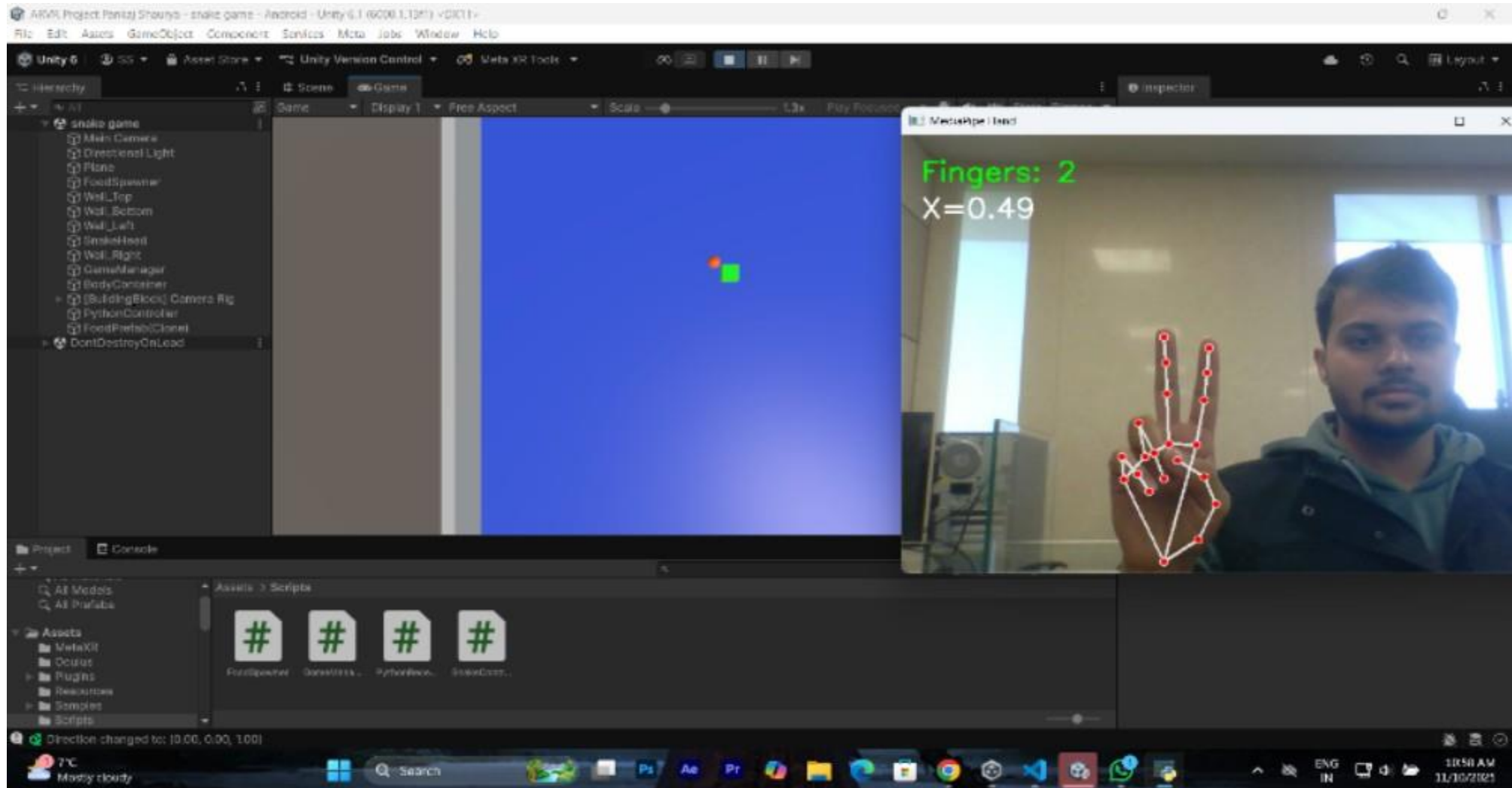
Hand Tracking Integration using MediaPipe

- To make the game more interactive, **MediaPipe's Hand Tracking pipeline** was integrated.

- **MediaPipe** is a machine learning framework developed by **Google**, used for real-time computer vision tasks.

- It tracks **hand landmarks** (fingers and palm positions) using a regular **webcam** — no special hardware required.

- The hand's **movement direction** is mapped to the **snake's movement** inside Unity:

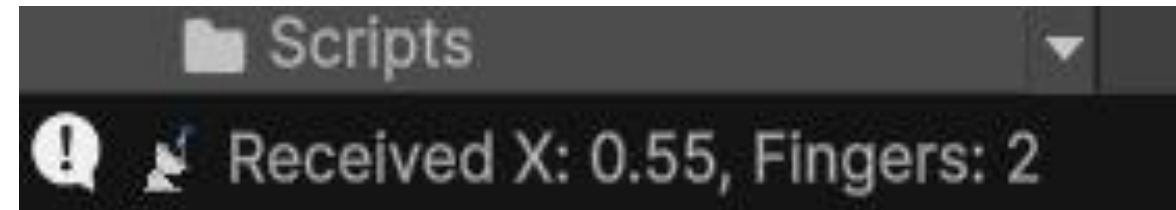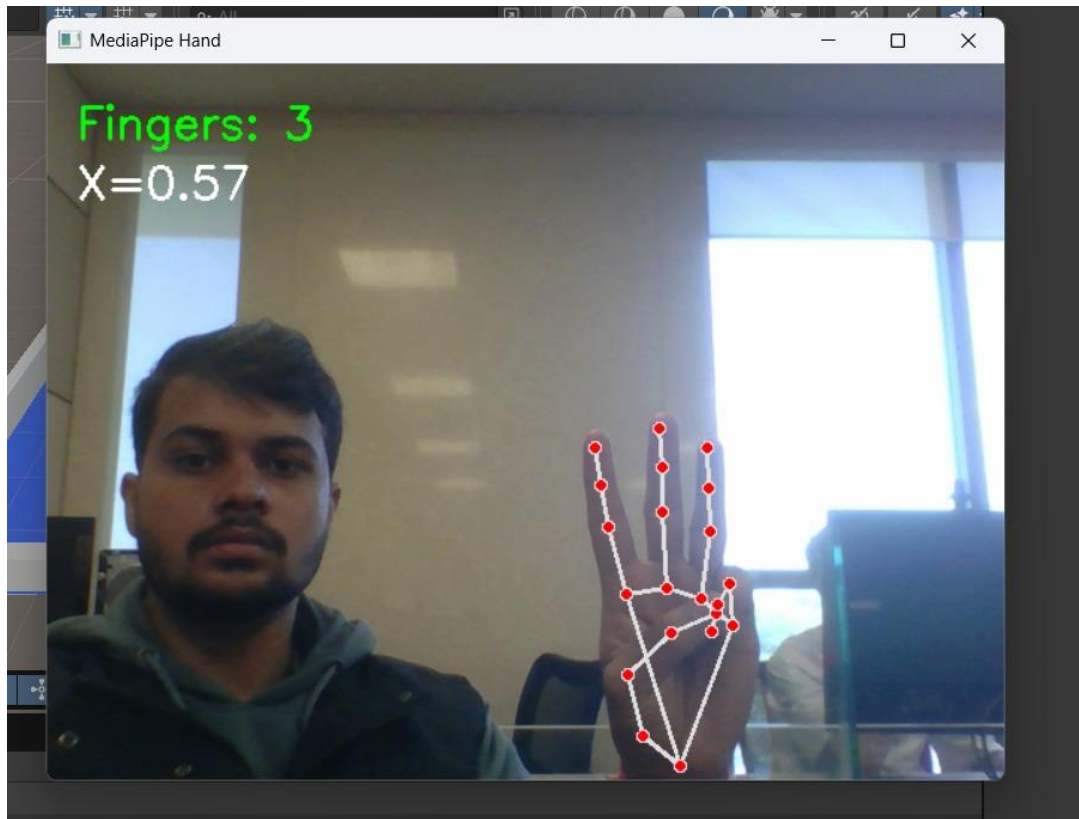- Moving the hand **up, down, left, or right** changes the snake's direction.
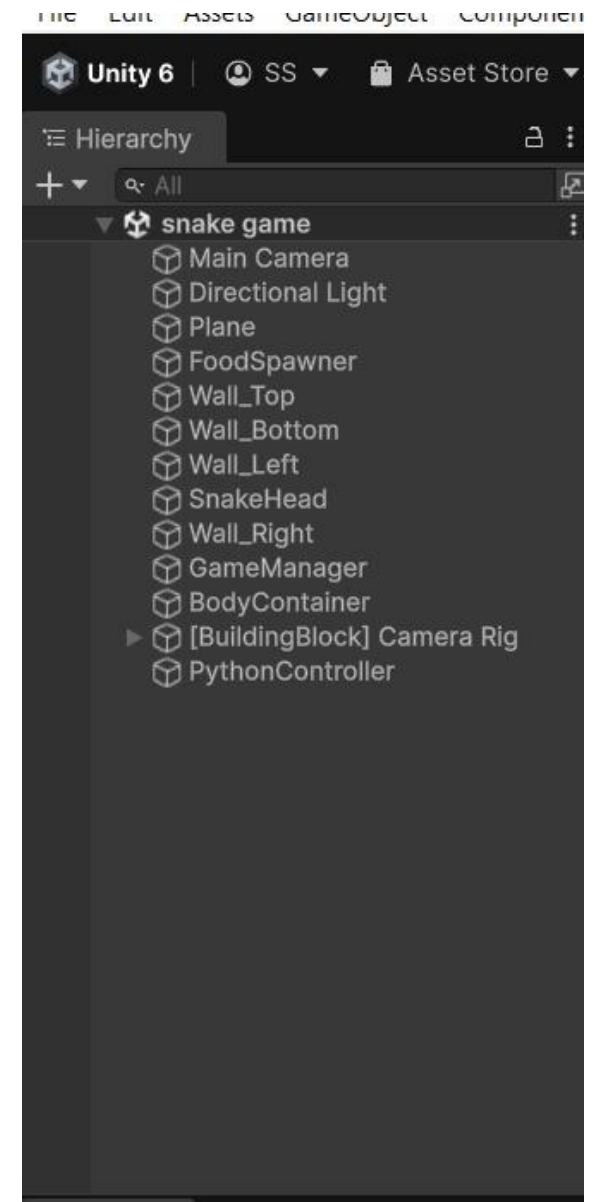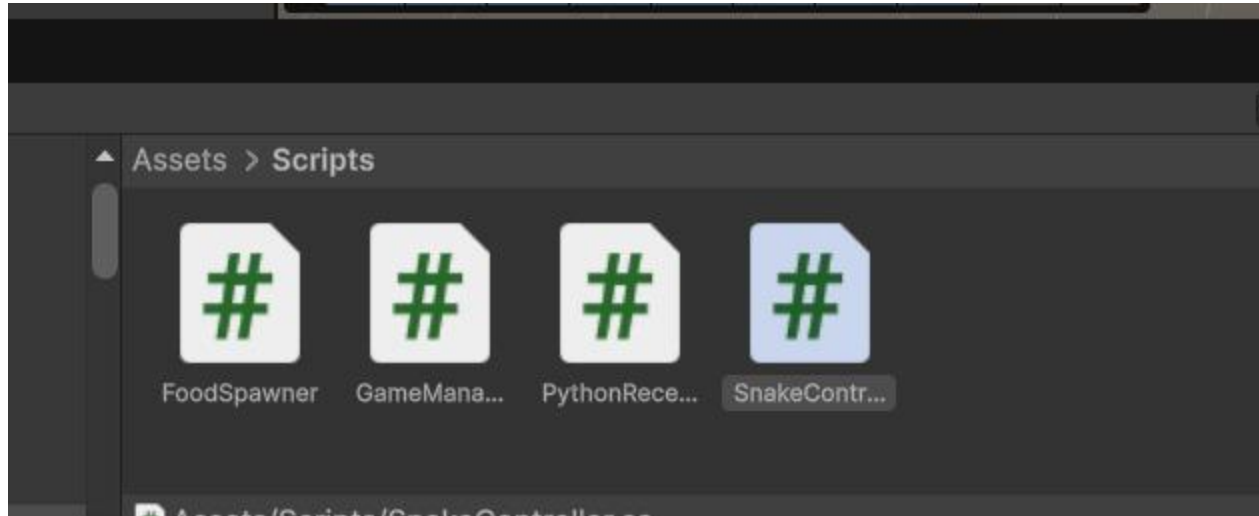
Game Views

Media pipeline Interactions

Hand Detection

Assets

Assets > Scripts

FoodSpawner   GameMana...   PythonRece...   SnakeContr...

Unity 6 | SS ▼   🛍 Asset Store ▼

≡ Hierarchy

+ ▼   🔍 All

▼ 🎯 snake game
- Main Camera
- Directional Light
- Plane
- FoodSpawner
- Wall_Top
- Wall_Bottom
- Wall_Left
- SnakeHead
- Wall_Right
- GameManager
- BodyContainer
- ▶ [BuildingBlock] Camera Rig
- PythonController

Thanks