List of Topics

Unity topics:

• Coroutines, quaternion

• Invoke, invoke repeating

• Classes and objects

• List and structures

• Mathf functions

• Game manager

• Oops concepts

• Camera controls

• Advance physics

• Optimization and rendering output

• Inventory management

• Vector function

• Different types of movement

• I tween

• Advance enemy ai follow options

• Unity intermediate functions

• Unity basic to advanced only programming

• I enumerator

• Inheritance, Polymorphism, and Encapsulation

• Base and derived classes

• Overriding and overloading methods

• Interfaces and abstract classes

• Exception Handling

• Try-catch-finally blocks

• Custom exceptions

• Delegates and Events

• Creating and using delegates

• Event handling in C#

• Unity-Specific C# Scripting

• MonoBehaviour Class

• Unity's scripting lifecycle (Awake, Start, Update, FixedUpdate, LateUpdate)

• Managing MonoBehaviour components

• Coroutines

• Using IEnumerator and coroutines for asynchronous tasks

• Input Handling

• Keyboard and mouse input

• Touch input for mobile devices

• Transform Operations

• Position, rotation, and scaling of GameObjects

• Parenting and unparenting objects

• Physics and Collisions

• Handling Rigidbodies and Colliders

• Collision detection and response

• Raycasting for object interaction

• Scripting Animations

• Controlling animations through scripts

• Animation events and transitions

• UI Scripting

• Managing UI elements (Buttons, Text, Sliders) through scripts

• Responding to user input in the UI

Explaining my 2D & 3D games:

For my 2D game, I made a simple game where we can teleport to the top and bottom platform to avoid the obstacles which move towards us.

The player can transform the position to escape the spawned obstacles and score is calculated when the obstacles leave the screen.

For my 3D game, I made a game inspired by a maze run in which we have to run through doors to reach the other side. Navmesh has been used to add enemy AI which will follow the player as he tries to reach the end.