3D Game Development Course

Module 01	**Game Development Introduction**
	Introduction: Unreal Game Engine
	Level Design and asset: content browser/terrain/landscape creation)
	Materials and Lighting: Material Editor, Introduction to Lighting, adjusting shadows and reflections
	Blueprint scripting: Introduction, Blueprint Actor, Variable Functions and Events in Blue print
	Player Movement and Camera: character system, setting up of Third person or first person. Controlling characters
	Physics and Animation: Physics Engine Basics, Chaos Physics and Animation Basics
	User Interface (UI) & HUD : Understanding UMG UI Designer, Adding Interactivity
	Audio and Visual Effects: Adding Sounds, Implementing Spatial Audio, Introduction to Niagara Particle System
	Game Logic and Save Games: Saving and Loading Data, Understanding Game Mode, player controller and game state
	Exploring Advance Features and Next Steps : Overview of AI & C++ , Multiplayer Basics. Understanding market place

Module 02	**Unreal Project Course**
	Project Setup & Level Design: Create a project, set up simple level, Import & organize assets (megascans/quixel market place)
	Player Setup & Basic Interaction: Define first person character, implement basic interaction using blue prints
	Creating game logic using Blueprint: create blueprint based object movements, animation and triggers.
	Physics: Enable physics on object and understand it's game needs
	UI & HUD Elements: Create a basic HUD (Heads up display) add main menu and pause menu using UMG
	Adding Timers & Game Progression: Implement count down timer, check point system . Adding multiple rooms
	Sound & Visual Effects: Play sounds with interaction, add background music, ambient sound. Improve lighting, post processing.
	Enemy or Moving Obstacles: Basic AI enemy or moving trap, use blue print to make enemy patrol an area, respawning.
	Victory Condition & Finishing Touches: Define winning condition, Victory screen, add replay option.
	Packaging & Playtesting: playtest and big fixing, optimize performance, package the game, share in different platforms

Module 03	**For 3D game developers**
	Create a multiplayer game with basic functionalities using the Module Trainings and Course completion certificates.

Note:	All the sessions will be delivered using zoom with hands on workshops
Tools	3ds Max, Substance Painter, Z Brush , Unreal Engine 5
Minimum Config	16 or 32 GB RAM. 1 TB HDD. 8 GB Graphics card. Windows / MacOS. Webcam and headphone