



Fundamentals of Game Development

Description:

Learn the Fundamentals of Game Development from Scratch using Pygame. This course is intended for anybody interested in learning Game Development with Python. The game's difficulty rises with each component, and you'll be able to expand your knowledge as you go through the course. You'll create wonderful games and learn how PyGame works by moving things about on the screen and interacting with items. You'll also learn how to build and import game-related images, as well as how to generate randomly moveable enemies, animate game characters, and play music and noises while playing the game.

Start Date:

Doubt Clear Time:

Course Time:

Features:

- # Online Instructor-led learning
- # Practical Implementation
- # Integrate academic knowledge with tech
- # Real-time project
- # Live class recording
- # Doubt clearing
- # Assignment in all the module
- # Quiz in every module
- # Career Counselling
- # Completion certificate

What we learn:

- # Introduction to Pygame
- # Deep-dive into Pygame
- # Game world
- # Sprites
- # Projects on game development

Requirements:

- # System with Internet Connection
- # Interest to learn
- # Dedication

Instructor:

>Introduction:

>>Course Introduction

>>Course Pre-requisites

>>Who is this course for?

>>What you will get from this course?

>>Introduction to digital games

>>How to get access to course materials?

>>What career path you can follow after completion of this course?

>Assignment 1::

>>What do you mean by graphics? How it is displayed?

>Introduction to Pygame:

>>What is Pygame?

>>History of Pygame

>>Installing Pygame

>>Modules in Pygame

>>Importing and initializing Pygame

>>Creating Pygame window

>>Opening full screen displays

>>Pygame surface

>>Pygame Clock

>>Pygame blit

>>Adding image in Pygame

>>Keydown and Keyup

>>Pygame draw

>>Drawing rectangle on Pygame

>>Other shapes

>>Pygame text and drawing

>>Hello world program in Pygame

>>Sprite

>>Collision detection

>Assignment 2::

>>Create a circle and when pressed keydown it should come down and become cylinder

>Deep-dive into Pygame:

>>Understanding events

>>Standard events

>>Frame rate

>>Moving sprite into straight line

>>Diagonal movement

>>Vectors

>>Using vectors to create movement

>>Controlling the game

>>Keyboard control

>>Detecting key press

>>Directional movements with keys

>>Mouse Control

>Assignment 3::

>>Create your own sprite and move it using keyboard

>Game world:

>>Introduction to Game Entities

>>Building world for entity

>>Building the brain: Actions for entities

>>Practical: Game World with actions for entities

>Assignment 4::

>>Add or draw your own entity in the game and define action for it.

>Projects :

>>Project: Bricks game

>Projects:

>>Project: Snake game

>Summary:

>>Course Outro

>>Future Scope of Pygame