

Godot 4 Indie Game Development

Course Duration: 60 Days

Topics & Details

Introduction to Godot 4 Indie Game Development:

★ **Lesson 1: Kick-off & Install**

- Download Godot 4.x stable
- Create a new 2-D project

★ **Lesson 2: Editor Navigation**

- Scene/Node panel basics
- Move, rotate, scale sprites

★ **Lesson 3: Sprites & Backgrounds**

- Import PNG sprite sheet
- Add parallax scrolling background

★ **Lesson 4: GDScript "Hello World"**

- Variables, print(), signals
- Attach script to player node

★ **Lesson 5: Player Movement (2-D)**

- Read keyboard input
- Move & flip sprite on run

★ **Lesson 6: Collisions & Physics**

- Add CollisionShape2D
- Detect wall and floor contact

★ **Lesson 7: Animation Player**

- Create run / idle / jump clips
- Blend animations by state

★ **Lesson 8: Camera Follow**

- Add Camera2D node
- Smooth-follow player across level

★ **Lesson 9: Tilesets & Level Design**

- Create tileset from PNG sheet
- Draw terrain with TileMap



- ★ **Lesson 10: Collectable Coins**
 - Coin scene with Area2D
 - Emit signal → add score
- ★ **Lesson 11: HUD – Score Display**
 - Label node for score
 - Update via signal connection
- ★ **Lesson 12: Simple Enemy Patrol**
 - KinematicBody2D enemy
 - Move between two points
- ★ **Lesson 13: Damage & Knock-Back**
 - Player loses health on hit
 - Flash sprite/red screen effect
- ★ **Lesson 14: Game Over & Restart**
 - Show GameOver UI
 - Restart level on button press
- ★ **Lesson 15: Sound & Music**
 - Add AudioStreamPlayer2D footsteps
 - Loop background music track
- ★ **Lesson 16: Particles & VFX**
 - Add sparkles to coin pick-up
 - Create fire particle for torch
- ★ **Lesson 17: Intro to 3-D**
 - Switch project to 3-D scene
 - Explore Spatial node workspace
- ★ **Lesson 18: Importing 3-D Models**
 - Bring in a GLTF prop
 - Apply standard material
- ★ **Lesson 19: 3-D Player Movement**
 - Basic WASD & mouse look
 - Gravity and jump logic
- ★ **Lesson 20: Lighting & Shadows (3-D)**
 - Directional Light + Environment
 - Tweak shadow softness & colour



★ **Lesson 21: Main Menu UI**

- Control node layout
- Play / Quit buttons trigger scenes

★ **Lesson 22: Save & Load Data**

- JSON file for score & settings
- Load at startup, save on exit

★ **Lesson 23: Input Map & Mobile Touch**

- Add virtual joystick buttons
- Test on Android export template

★ **Lesson 24: Optimisation Check**

- Use Profiler dock
- Batch sprites & reduce draw calls

★ **Lesson 25: Export for Windows**

- Set icon & splash
- Generate standalone EXE

★ **Lesson 26: Export for Android**

- Install export templates & keystore
- Build APK & test on phone

★ **Lesson 27: Polish Pass – Post-FX**

- Add bloom & colour-grade LUT
- Tweak exposure for style

★ **Lesson 28: Trailer & Screenshots**

- Record 30-sec gameplay with built-in recorder
- Capture HD screenshots

★ **Lesson 29: Publish on itch.io**

- Create project page
- Upload Windows & Android builds

★ **Lesson 30: Showcase & Feedback**

- Playtest peers' games
- Gather feedback and celebrate certificates

