# Pract-6 Add a 2D player sprite and move it using keyboard/touch

# Step 1 – Open Godot and start a new game

- 1. Open the Godot app.
- 2. Click New Project.
- 3. Give it a name, like PlayerSprite.
- 4. Pick a folder where you want to save it.
- 5. Click **Create & Edit** this will open your game!

#### **Step 2 – Create your Player**

- 1. Click on the top-left "Scene"  $\rightarrow$  "+"  $\rightarrow$  Add **Node2D**.
- 2. Name it Player. That's your game's hero!

## Step 3 – Add a picture for your player

- 1. Click on your Player  $\rightarrow$  Add **Sprite2D**.
- 2. In the right side (Inspector), click on the box next to **Texture**  $\rightarrow$  click **Load**  $\rightarrow$  choose a picture of a character.

#### Step 4 – Add a collision shape

- 1. Click on Player  $\rightarrow$  Add CollisionShape2D.
- 2. In Inspector, click Shape  $\rightarrow$  New RectangleShape2D.
- 3. Adjust the rectangle so it covers your player image.

#### Step 5 – Teach your player how to move

- 1. Select the Player.
- 2. Click Attach Script  $\rightarrow$  choose GDScript  $\rightarrow$  click Create.
- 3. Copy and paste this code:

## (Where to find "Attach Script" in Godot

#### 1 First, make sure you have your Player node selected.

- Look at the **Scene panel** on the left.
- Click on Player → it should highlight in blue.

## 2 Now, look at the top of the screen.

You'll see several buttons like **Scene**, **Import**, **Debug**, etc.

• Right next to the name of your scene (Player.tscn), there is a button that looks like a paper with a pencil — — this is Attach Script.

```
→ Click that!
```

)

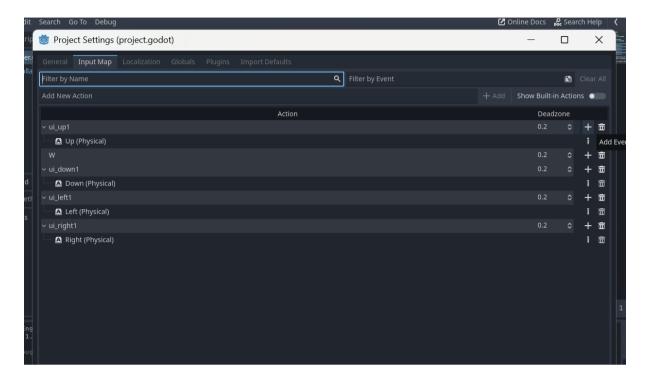
# Now add this script in Player.tscn

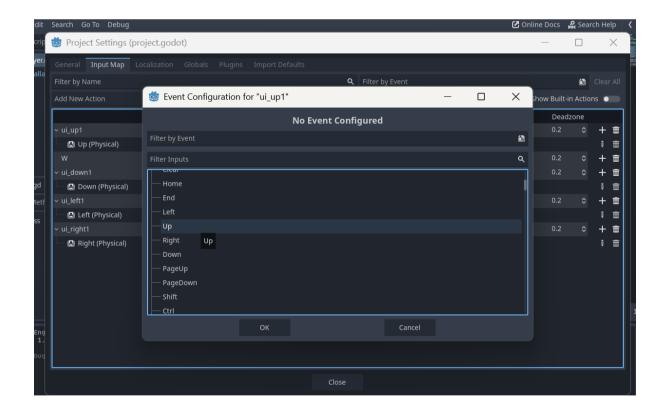
```
extends Node2D
var speed = 200
var velocity = Vector2.ZERO
func _process(delta):
   velocity = Vector2.ZERO
   if Input.is_action_pressed("ui_right1"):
           velocity.x += 1
   if Input.is_action_pressed("ui_left1"):
           velocity.x = 1
   if Input.is_action_pressed("ui_down1"):
           velocity.y += 1
   if Input.is_action_pressed("ui_up1"):
           velocity.y -= 1
   if velocity.length() > 0:
           velocity = velocity.normalized() * speed
   position += velocity * delta
```

## Step 6 – Teach the game which keys you want to use

- 1. At the top, click **Project**  $\rightarrow$  **Project Settings**  $\rightarrow$  **Input Map**.
- 2. Add new actions:

- o Type ui up  $\rightarrow$  click Add  $\rightarrow$  click it and add W and Up Arrow.
- o Do the same for ui down, ui left, and ui right.





Step 7 – Make a new Main Scene

- 1. Click Scene  $\rightarrow$  New Scene.
- 2. Add Node2D, call it or name it Main.
- 3. Save it.

## Step 8 – Put your player into the main scene

- 1. Click  $+ \rightarrow$  Instance Scene  $\rightarrow$  choose Player.tscn.
- 2. Now your player is inside the main scene!

(How to add your Player to the Main scene)

- In the **Scene panel**, make sure Main is selected.
- Click the + (Add Child Node) button → it adds nodes inside Main.
- But instead of adding a new node, we want to **add something that already exists**.
- So, click the **Folder icon** next to **Instance a Scene** at the top of the Scene panel (or click **Scene**  $\rightarrow$  **Instance Scene...** from the top menu).
- A file chooser window appears.
- Find and select your Player.tscn file.
- Click **Open**.

Now your Player is "inside" the Main scene!

# Step 9 – Run and play!

- 1. Click **Play** (**F5**) at the top.
- 2. Use the arrow keys or **up**, **down**, **left**, **right** to move your character!

If F5 couldn't work then use this

