



Disciplina: T166 – Experimentação de Protótipos

Jogo de Plataforma – Parte I

Profa. Ma. Karoline Rodrigues Lima

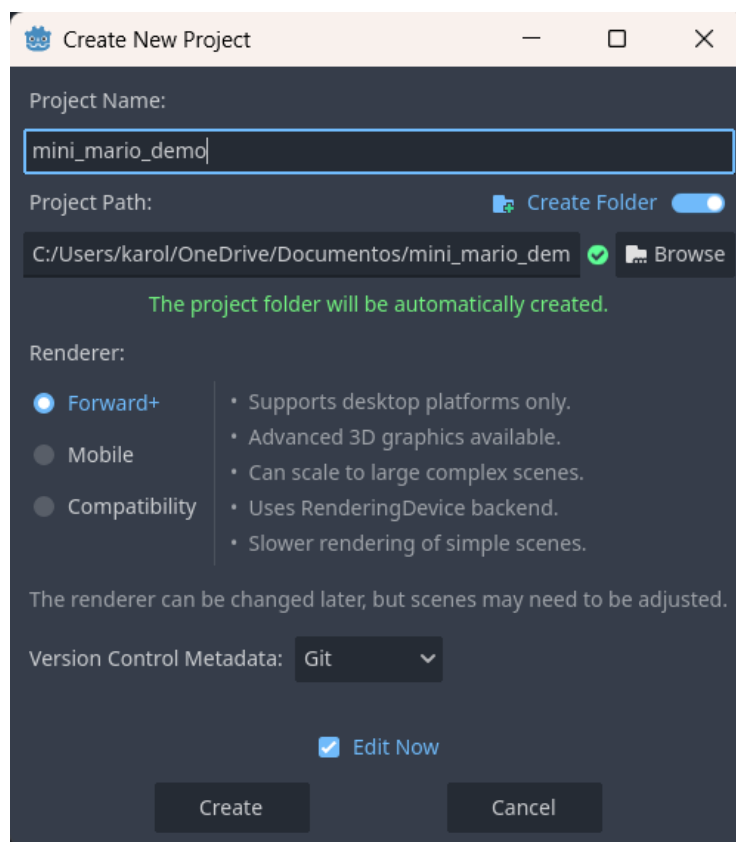


- 1 Novo Projeto
- 2 Configurações Iniciais
- 3 Cena: Main
- 4 Cena: Player

1 Novo Projeto

















- Abrir o GODOT e criar novo projeto



2 Configurações Iniciais



















- Baixar os assets no AVA e colocar na pasta “mini_mario_demo”

Nome	Status
 .godot	
 Assets Super Mario Bros	
 .gitattributes	
 .gitignore	
 icon	
 icon.svg.import	
 project	

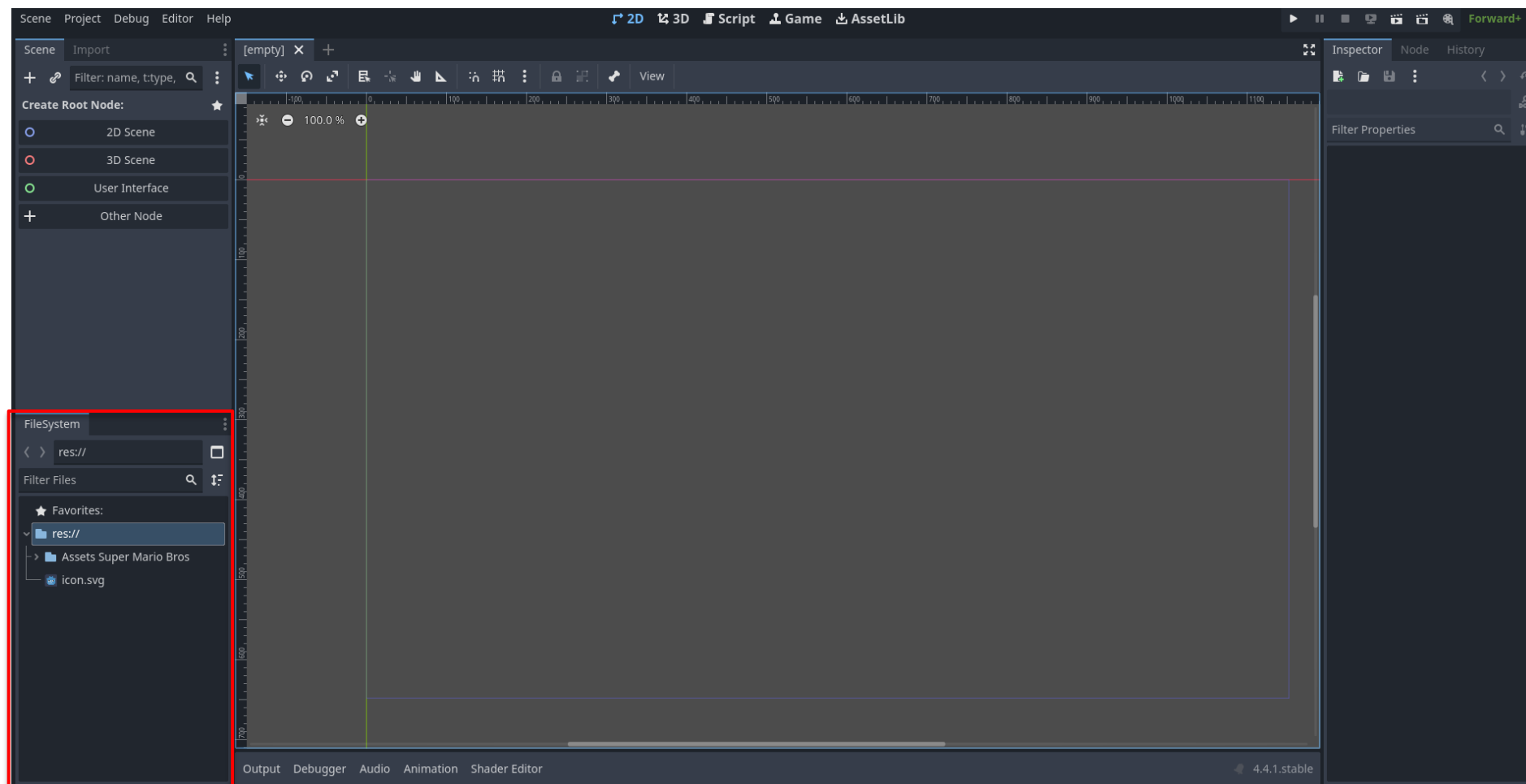
2 Configurações Iniciais



- Criar pasta Cenas dentro da pasta “mini_mario_demo”

Nome	Status
 .godot	
 Assets Super Mario Bros	
 Cenas	
 .gitattributes	
 .gitignore	
 icon	
 icon.svg.import	
 project	

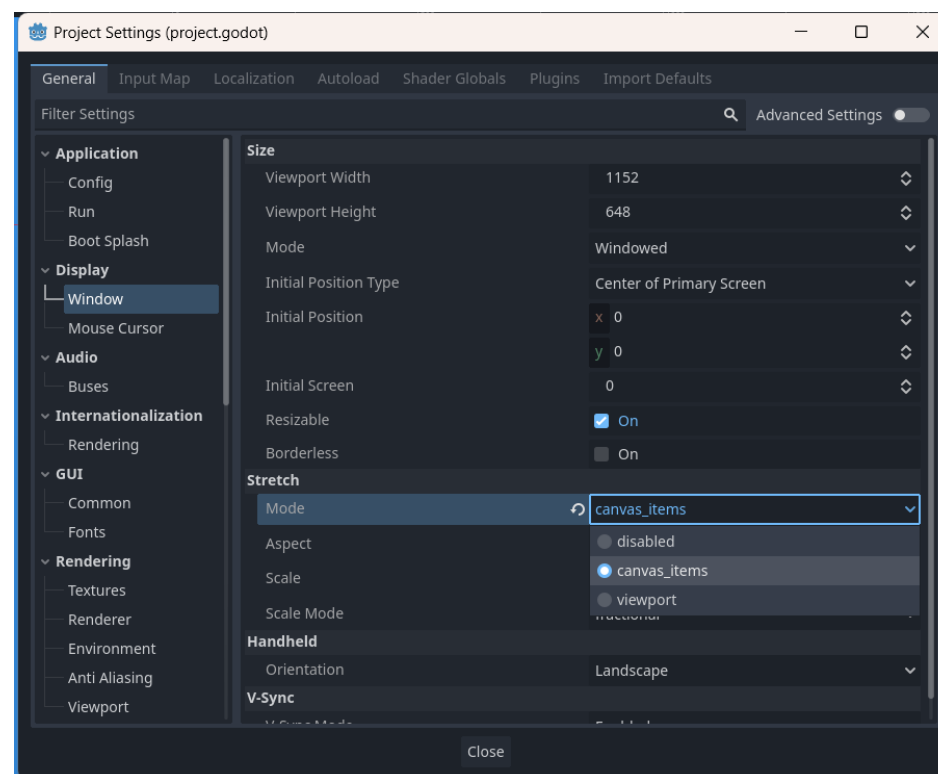
2 Configurações Iniciais





2 Configurações Iniciais

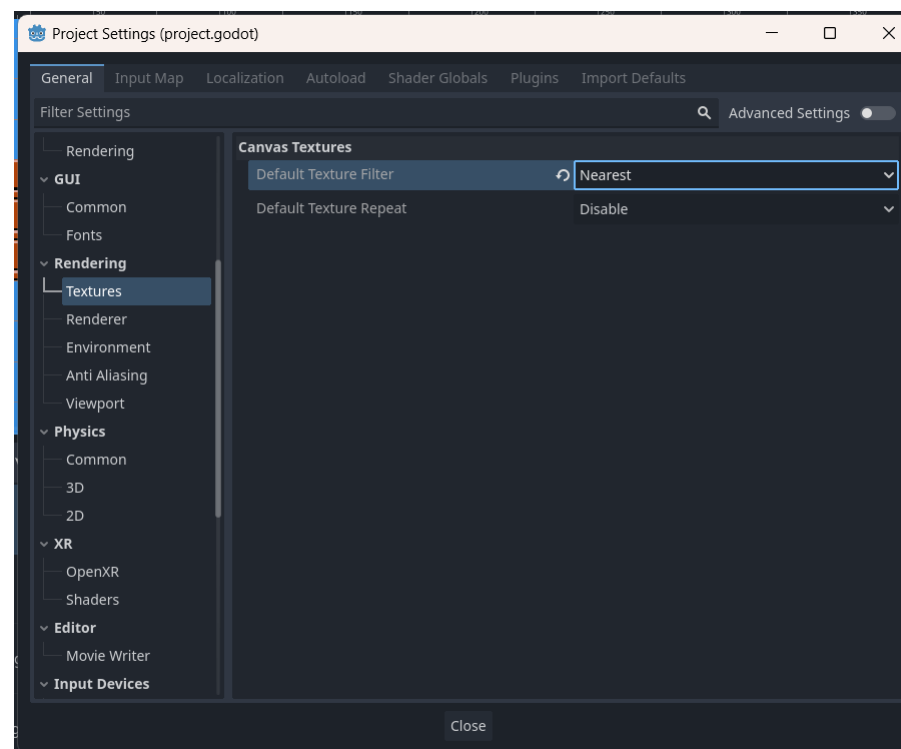
- Clicar em Project → Project Settings → General
 - *Display → Window → Stretch → Mode: canvas_items*



2 Configurações Iniciais



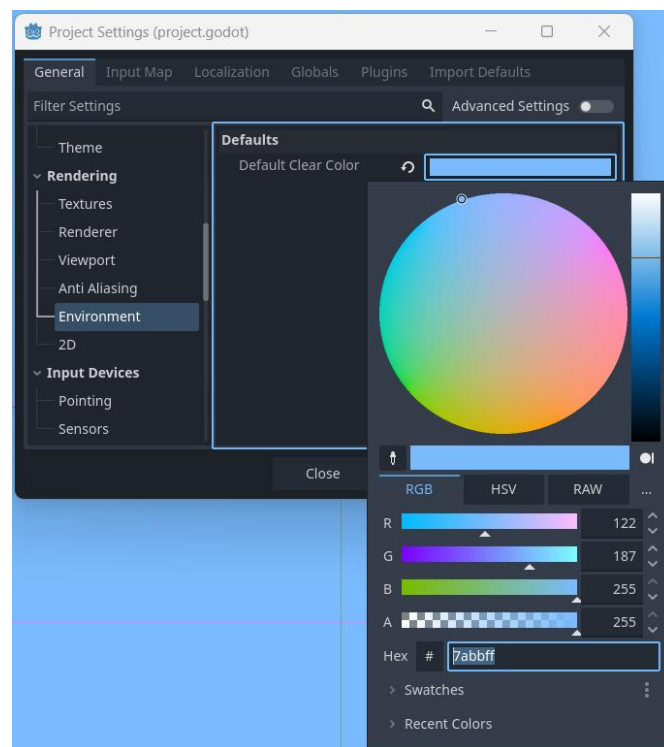
- Clicar em Project → Project Settings → General
 - *Rendering → Textures → Default Texture Filter: Nearest*



2 Configurações Iniciais



- Clicar em Project → Project Settings → General
 - *Rendering → Environment → Default clear color → Hex: 7abbff*





2 Configurações Iniciais

- Clicar em Project → Project Settings → General

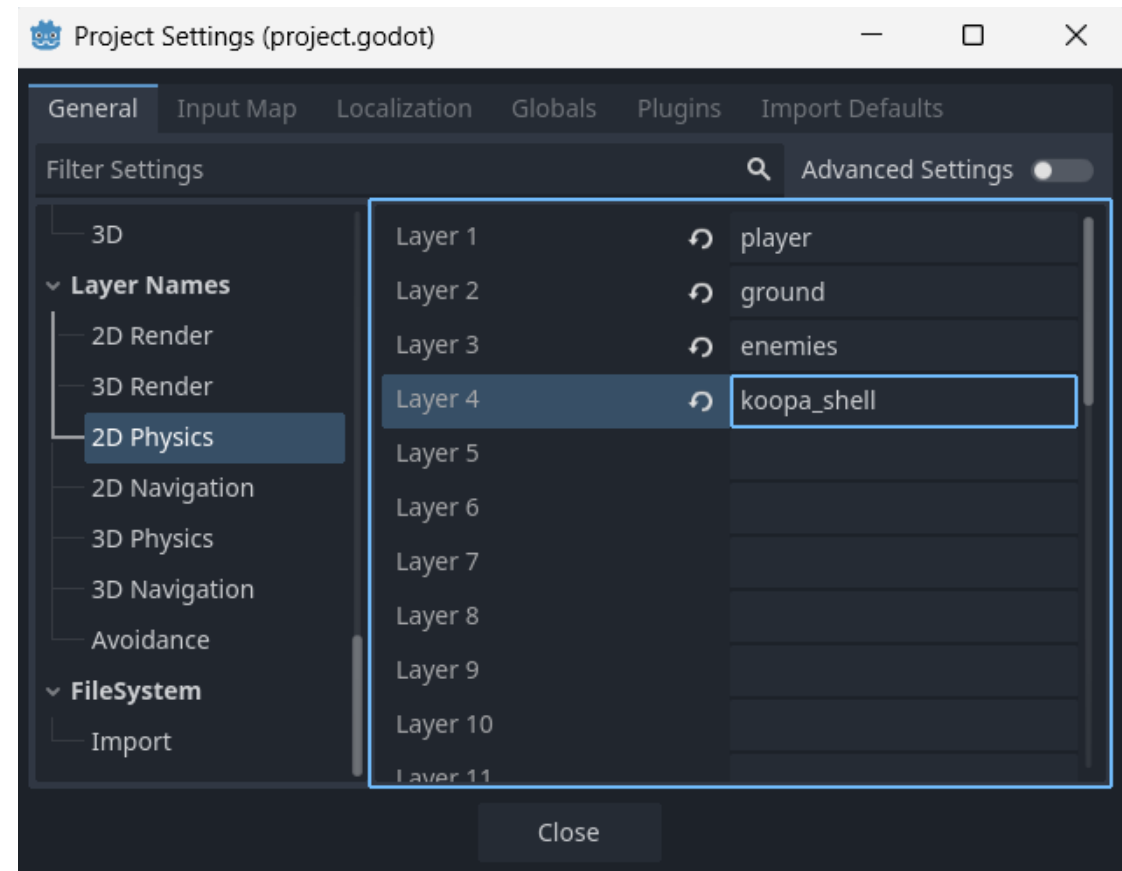
- *Layer Names* → *2DPhysics*

- *Layer 1: player*

- *Layer 2: ground*

- *Layer 3: enemies*

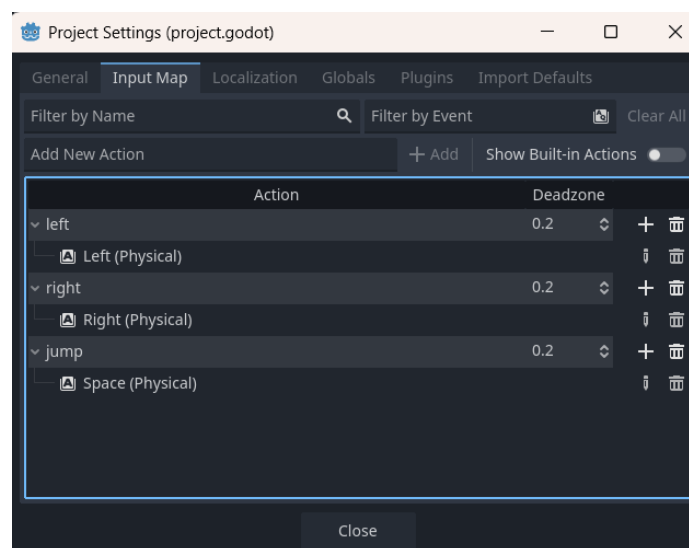
- *Layer 4: koopa_shell*





2 Configurações Iniciais

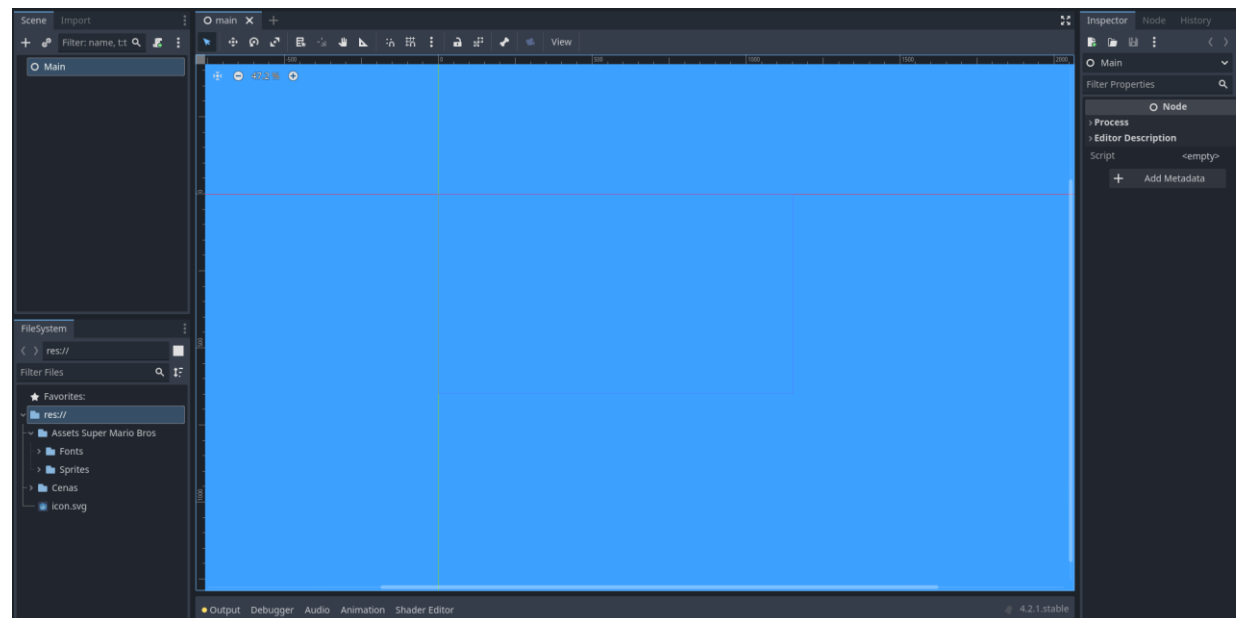
- Clicar em Project → Project Settings → Input Map → Add New Action
 - *Digitar left* → Clicar em add → Clicar em + → Clicar em add → Keyboard Keys → Left
 - *Digitar right* → Clicar em add → Clicar em + → Clicar em add → Keyboard Keys → Right
 - *Digitar jump* → Clicar em add → Clicar em + → Clicar em add → Keyboard Keys → Up





3 Cena: Main

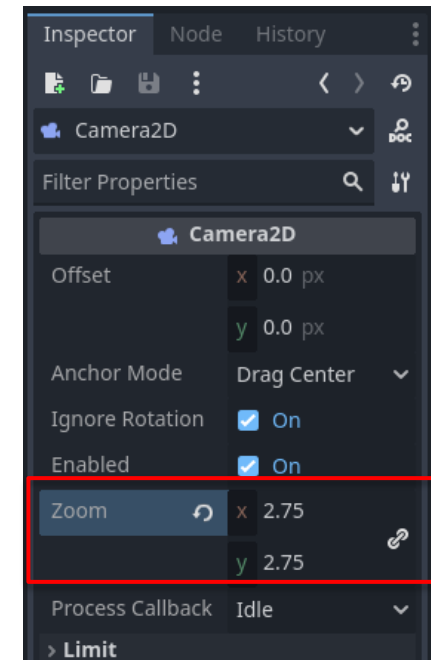
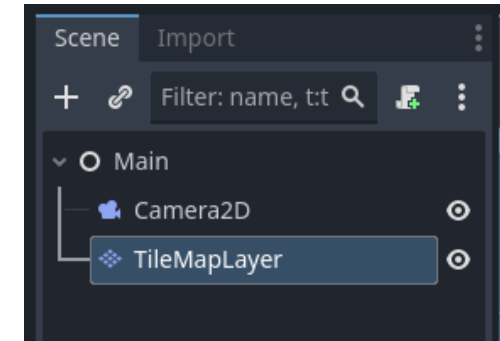
- No painel Scene, clicar em Other Node
 - *Node* → *Create* (Renomear o nó para Main)
- Salvar Main dentro da pasta Cenas





3 Cena: Main

- Clicar com o botão direito em *Main*
 - *Add Child Node* → *Camera2D*
 - *Add Child Node* → *TileMapLayer*
- Clicar em *Camera2D*, na aba *Inspector*:
 - *Zoom* → *x: 2.75*
y: 2.75



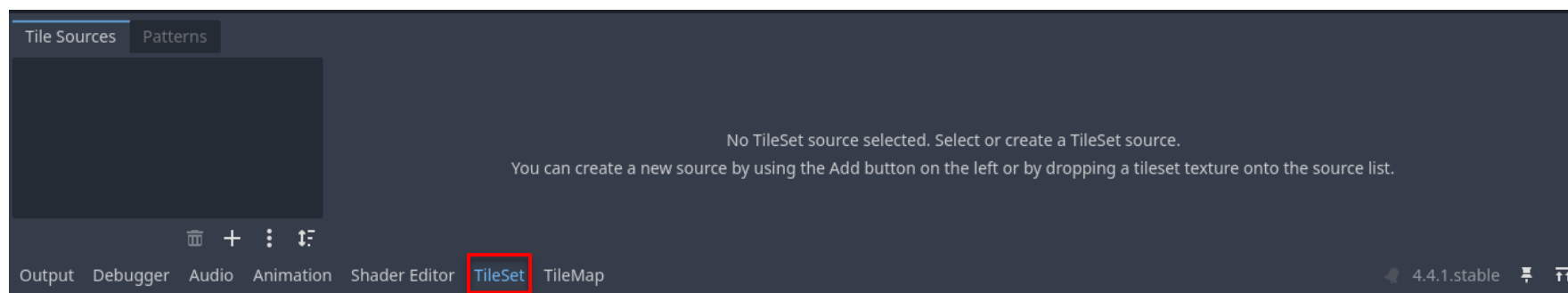
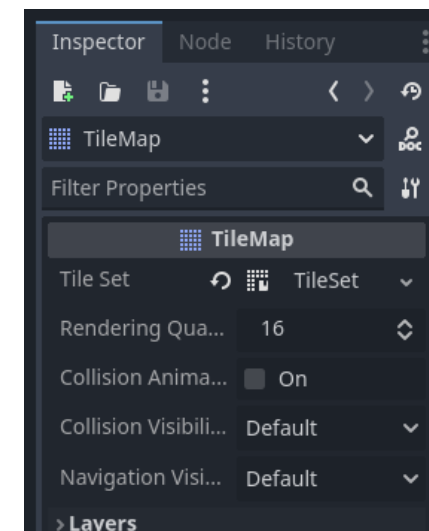
3 Cena: Main



- Clicar em TileMapLayer, na aba Inspector:

- *Tile Set* → *New TileSet*

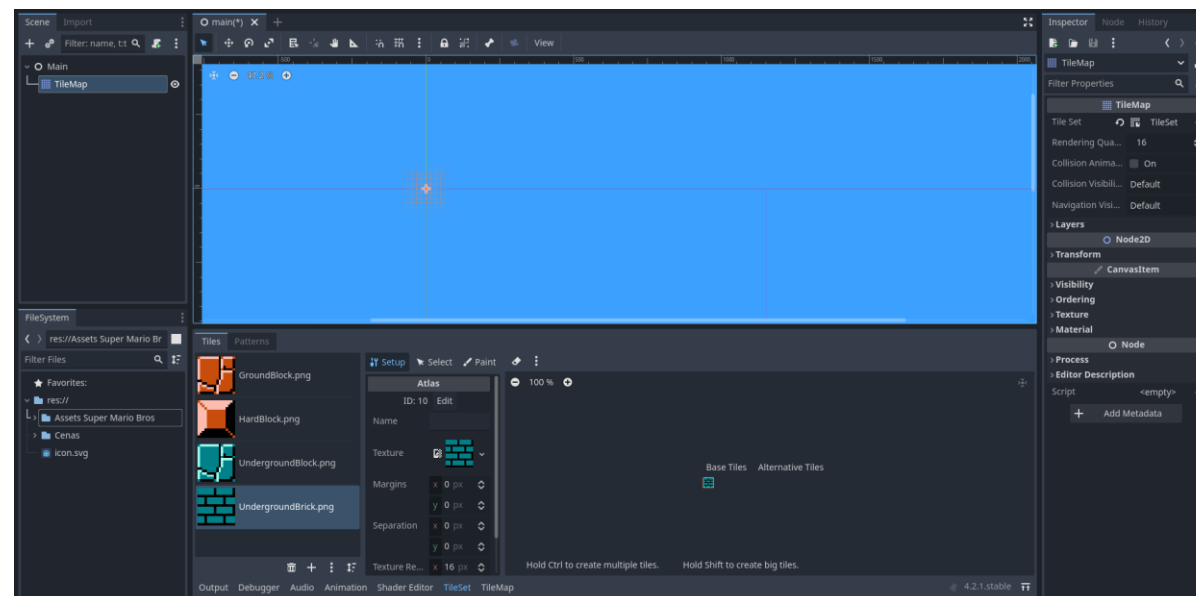
- Clicar em TileMap, na aba TileSet:





3 Cena: Main

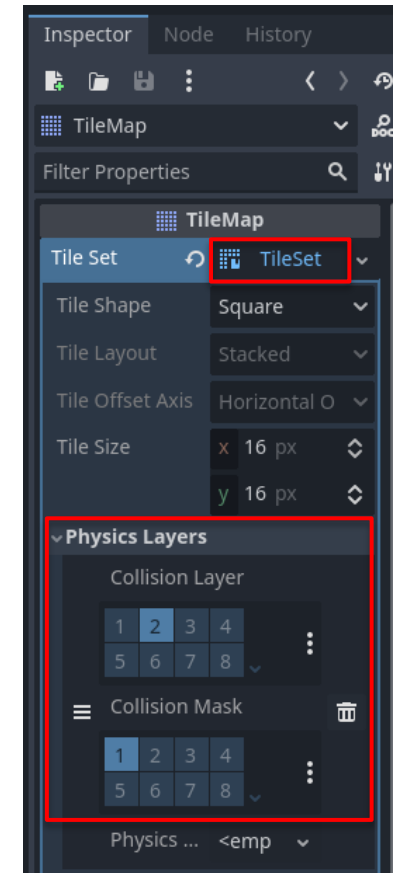
- Clicar em TileMap, na aba TileSet:
 - *Clicar em + → Atlas → Assets Super Mario Bros → Sprites*
 - *Selecionar GroundBlock.png; HardBlock.png; UndergroundBlock.png; UndergroundBrick.png*





4 Cena: Main

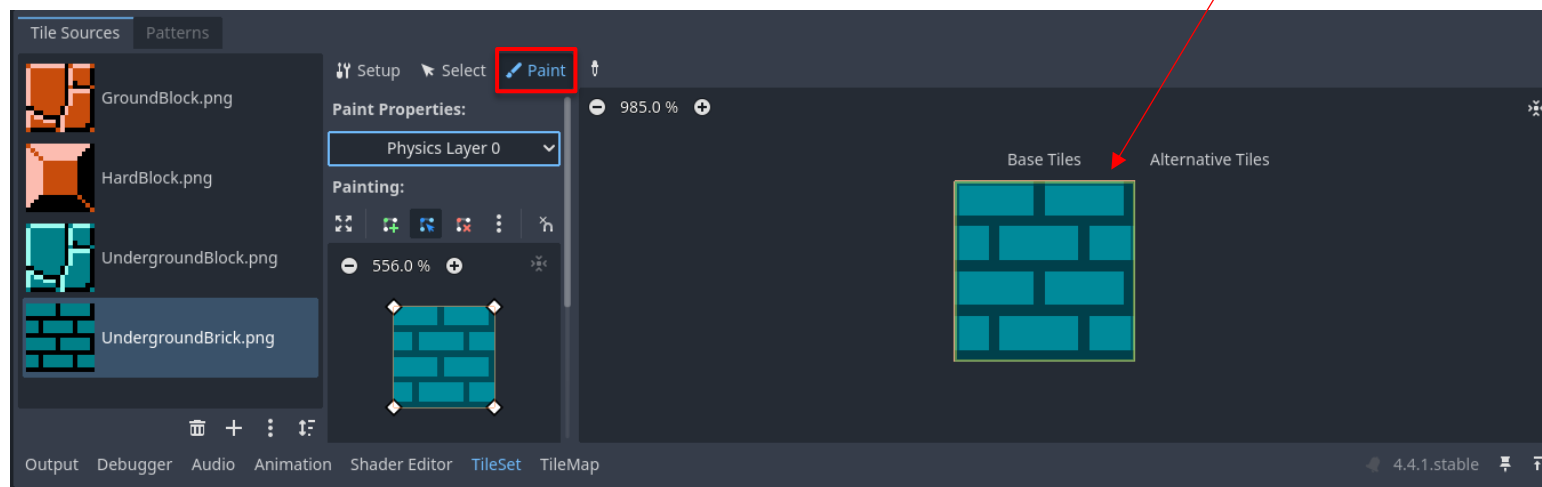
- Clicar em TileMap, na aba Inspector:
 - *Clicar em Tile Set → Physics Layers → Add Element → Layer: 2 (ground) Mask: 1 (player)*



3 Cena: Main



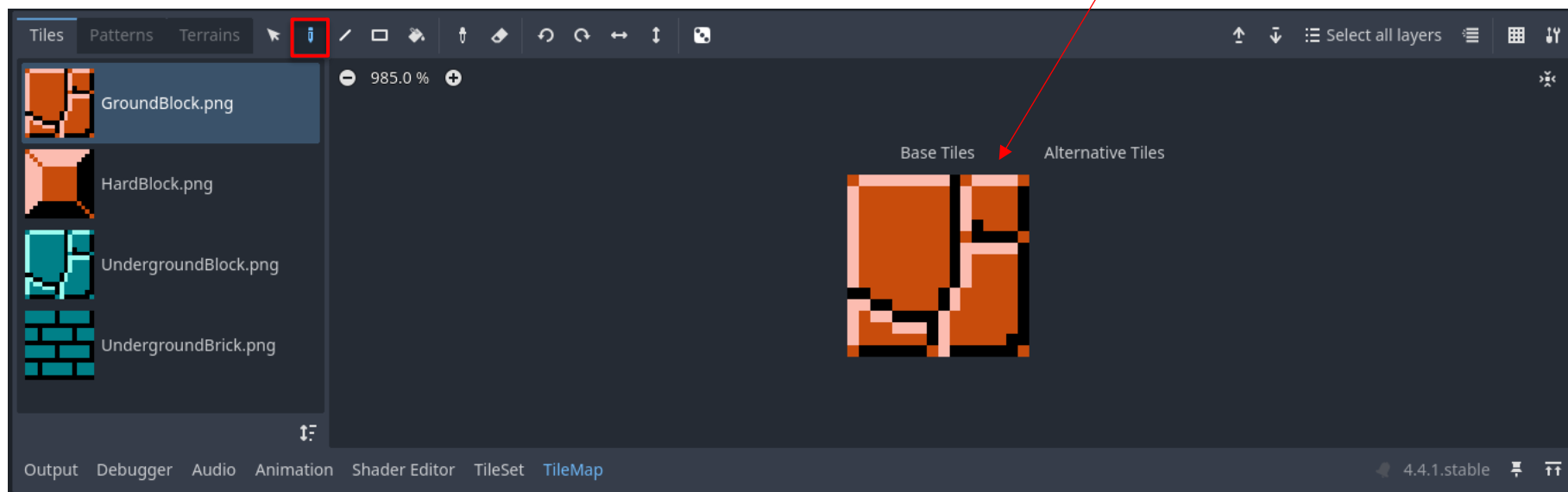
- Clicar em TileMap, na aba TileSet:
 - *Clicar em Paint → Select a property editor → Physics Layer 0 → Clicar em Base Tiles para adicionar colisão.*
 - *Clicar nos outros blocos para adicionar colisão.*



3 Cena: Main



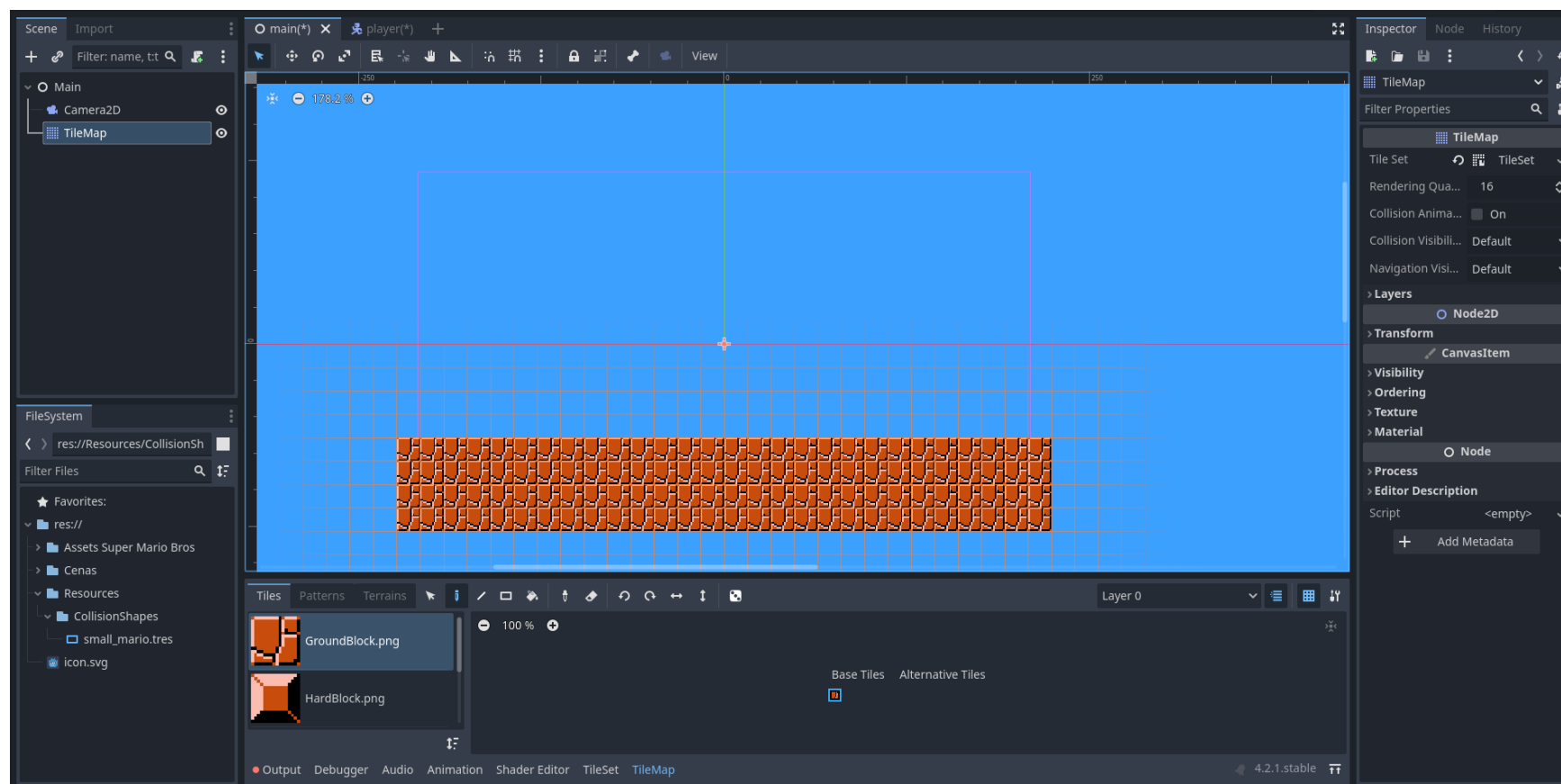
- Clicar em TileMap, na aba TileMap:
 - *Selecionar a opção paint*
 - *Selecionar o bloco GroundBlock.png*



3 Cena: Main



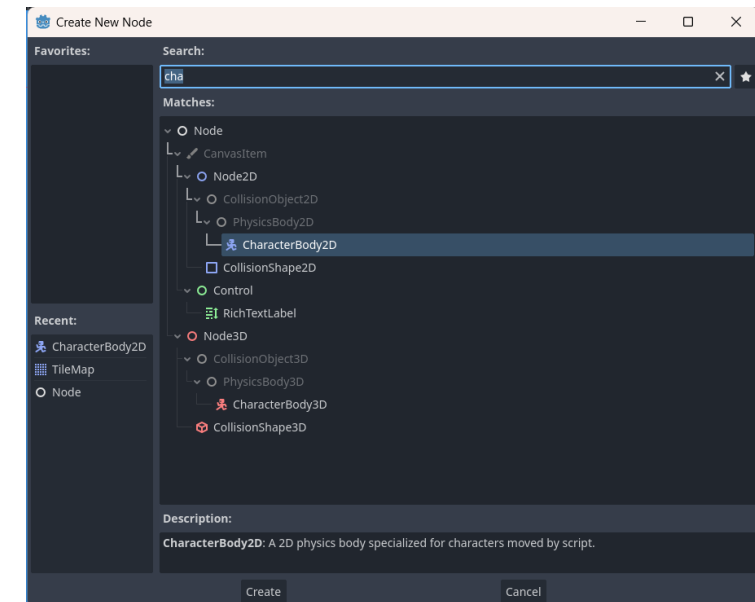
- Preencher a parte inferior da Camera2D com os blocos



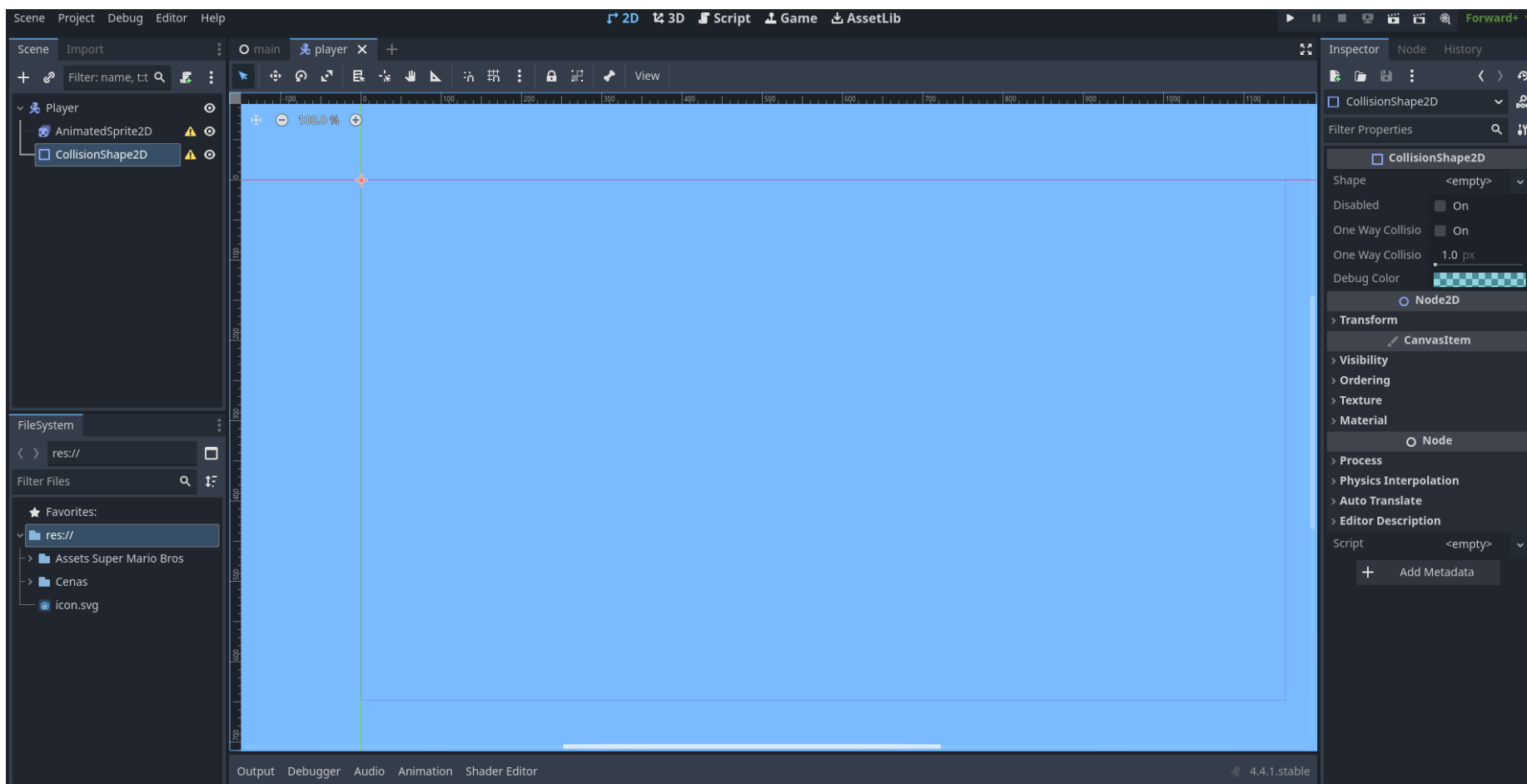


4 Cena: Player

- Clicar em New Scene → Other Node → CharacterBody2D → Create
 - *Renomear CharacterBody2D para Player*
- Salvar Player dentro da pasta Cenas
- Clicar com o botão direito em Player
 - *Add Child Node → AnimatedSprite2D*
 - *Add Child Node → CollisionShape2D*



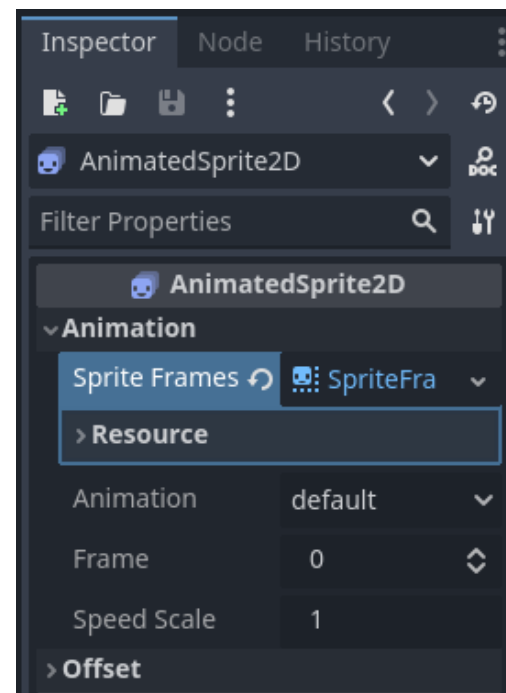
4 Cena: Player





4 Cena: Player

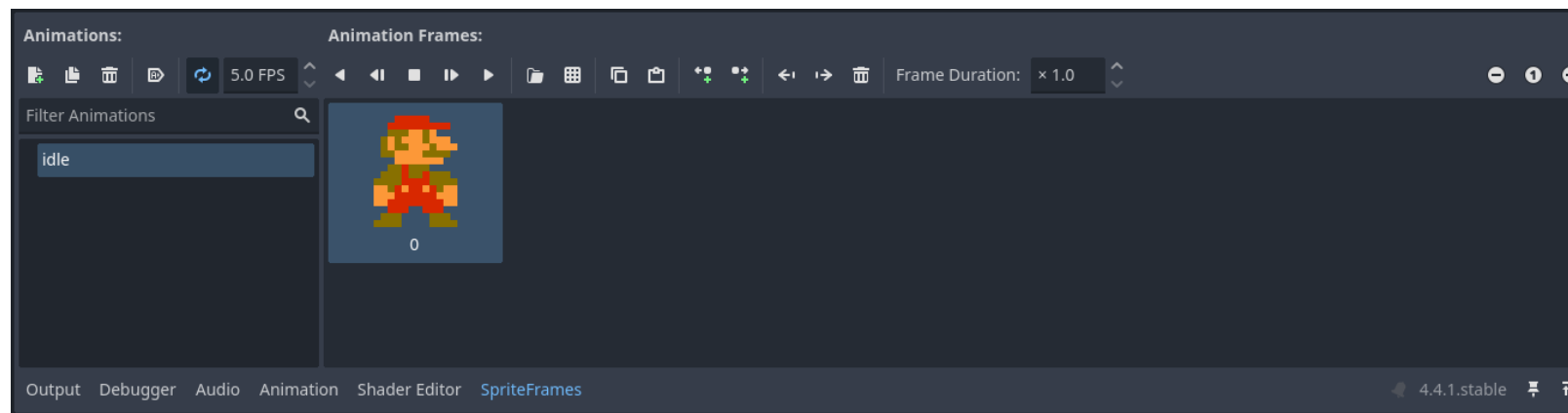
- Clicar em AnimatedSprite2D, na aba Inspector:
 - *Animation → Sprite Frames → New SpriteFrames*





4 Cena: Player

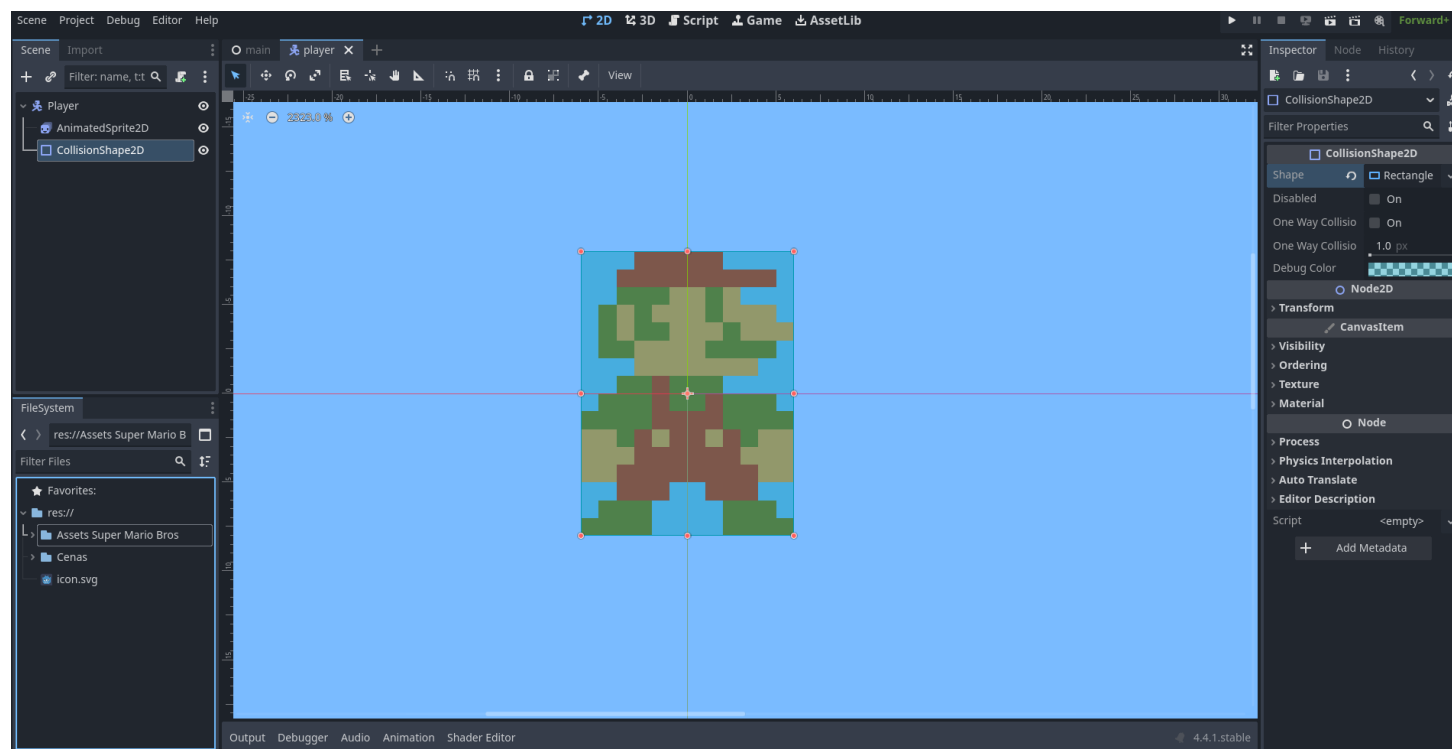
- Clicar em SpriteFrames, na aba SpriteFrames:
 - *Renomear default para idle*
 - *Add frame from file → Assets Super Mario Bros → Sprites*
 - *Selecionar Mario_Small_Idle.png*



4 Cena: Player



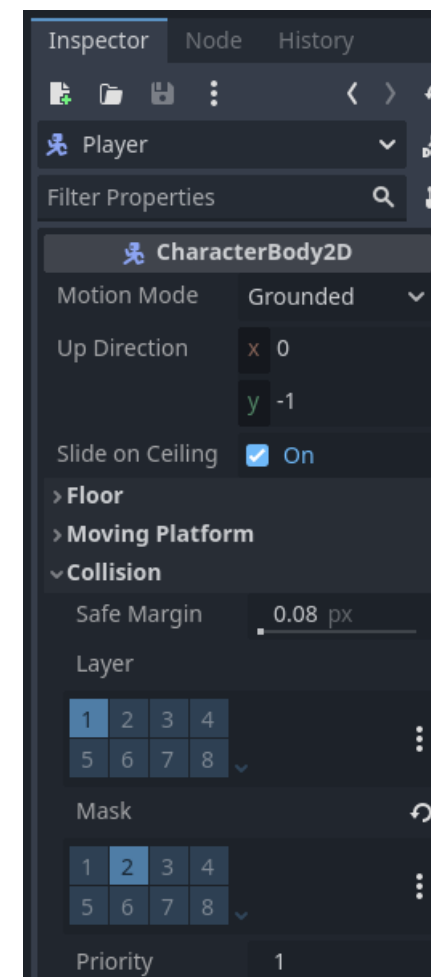
- Clicar em CollisionShape2D, na aba Inspector:
 - *Shape* → *NewRectangleShape2D*



4 Cena: Player



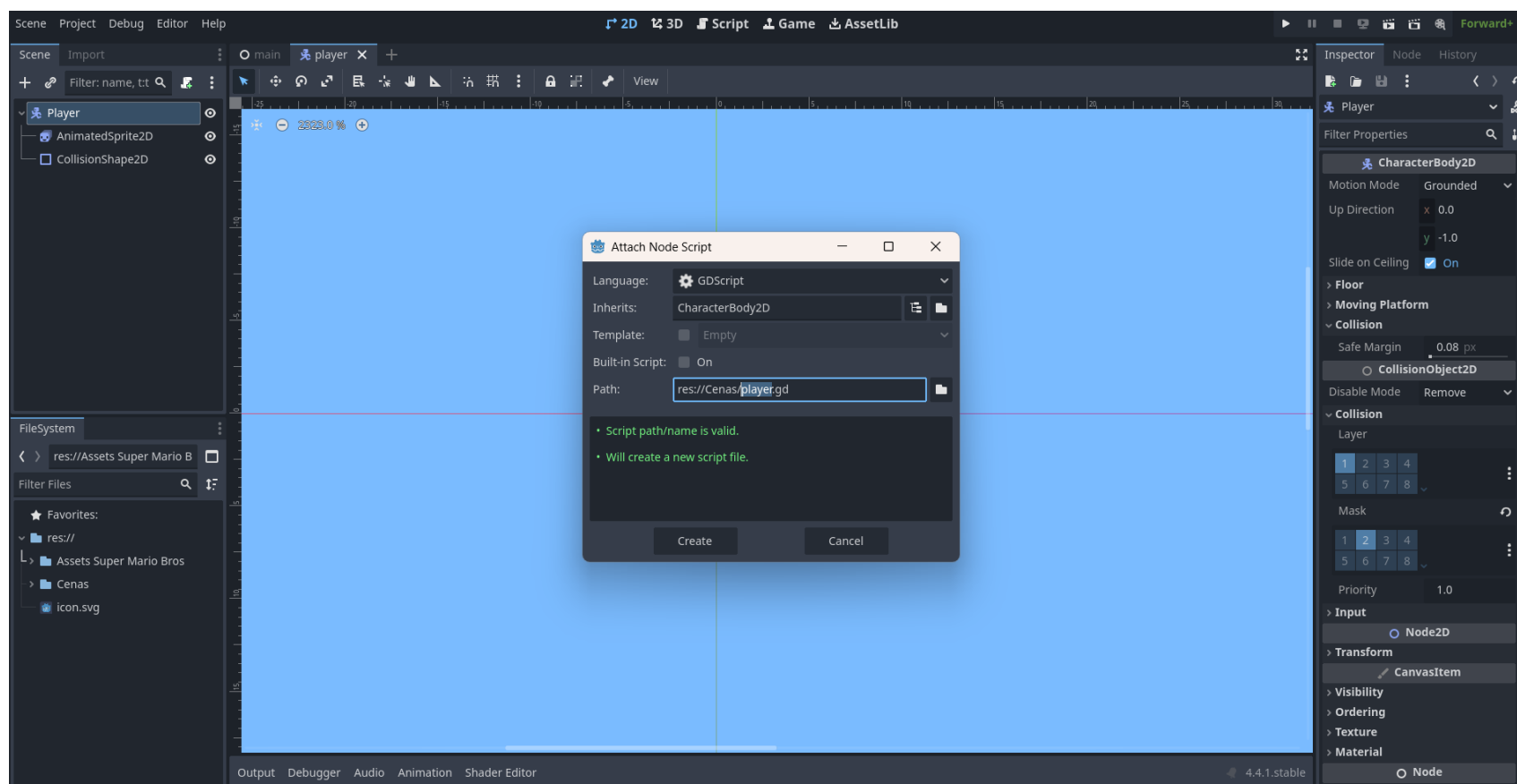
- Clicar em Player, na aba Inspector:
 - *Collision* → *Layer: 1 (player)*
Mask: 2 (ground)



4 Cena: Player



- Clicar em Player → Attach Script → Create



4 Cena: Player

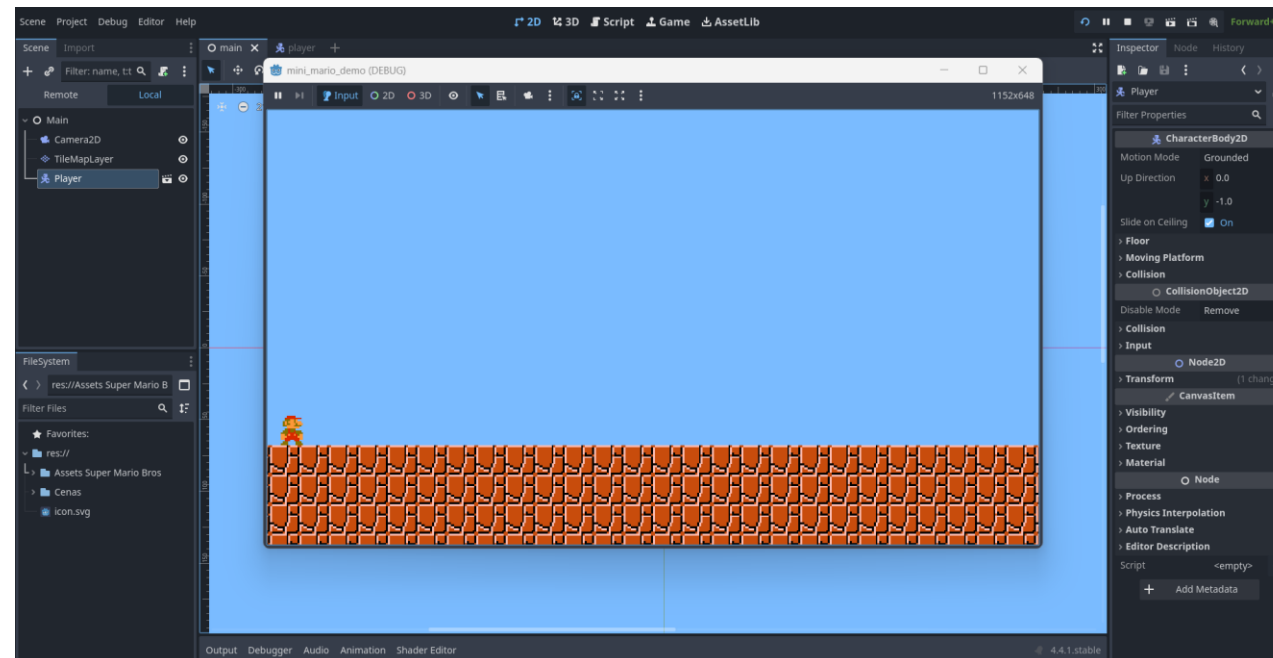


```
1  extends CharacterBody2D
2
3  class_name Player
4
5  @export_group("Locomotion")
6  @export var speed = 200.0
7  @export var jump_velocity = -350
8  @export var run_speed_damping = 0.5
9
10 var gravity = ProjectSettings.get_setting("physics/2d/default_gravity")
11
12 func _physics_process(delta):
13     >|
14     >| if not is_on_floor():
15     >| >| velocity.y += gravity * delta
16     >|
17     >| if Input.is_action_just_pressed("jump") and is_on_floor():
18     >| >| velocity.y = jump_velocity
19     >|
20     >| if Input.is_action_just_released("jump") and velocity.y < 0:
21     >| >| velocity.y *= 0.5
22     >|
23     >| var direction = Input.get_axis("left", "right")
24     >|
25     >| if direction:
26     >| >| velocity.x = lerp(velocity.x, speed * direction, run_speed_damping * delta)
27     >| >| else:
28     >| >| velocity.x = move_toward(velocity.x, 0, speed * delta)
29     >|
30     >| move_and_slide()
31
```



4 Cena: Player

- Na cena Main, clicar com o botão direito em *Main*
 - *Instantiate Child Scene* → *Player*
 - *Posicionar o player no cenário com o mouse*





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