Godot Course Survivor

01 - Input

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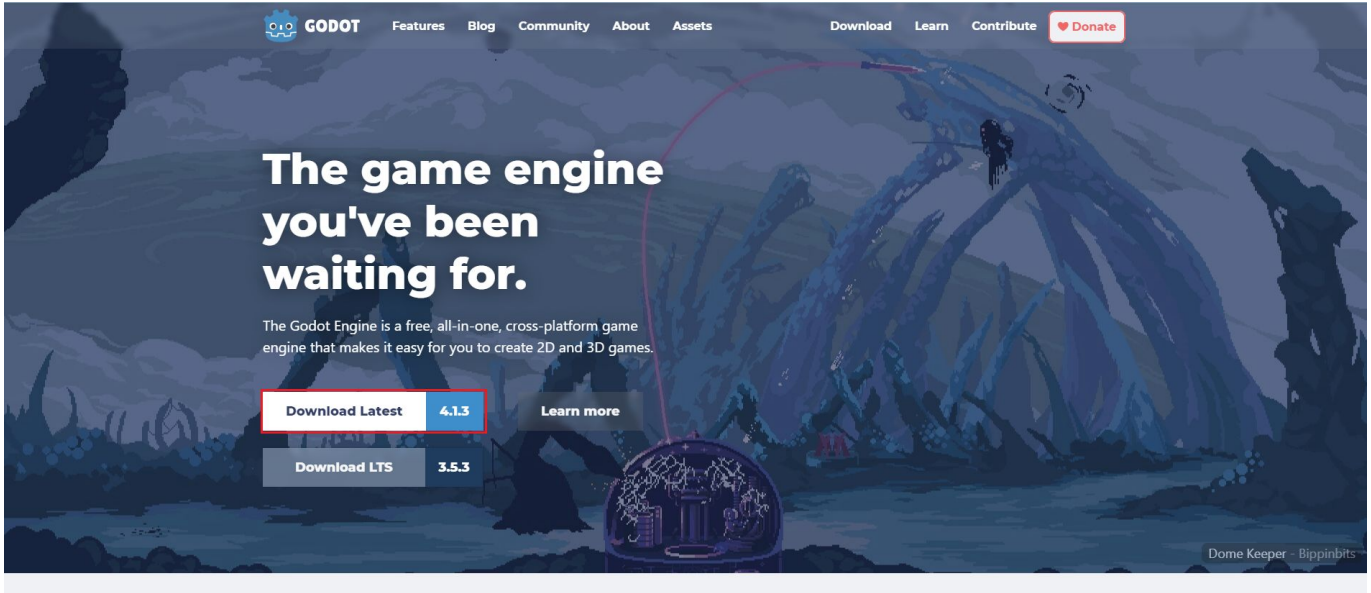
Assets

https://godotengine.org/

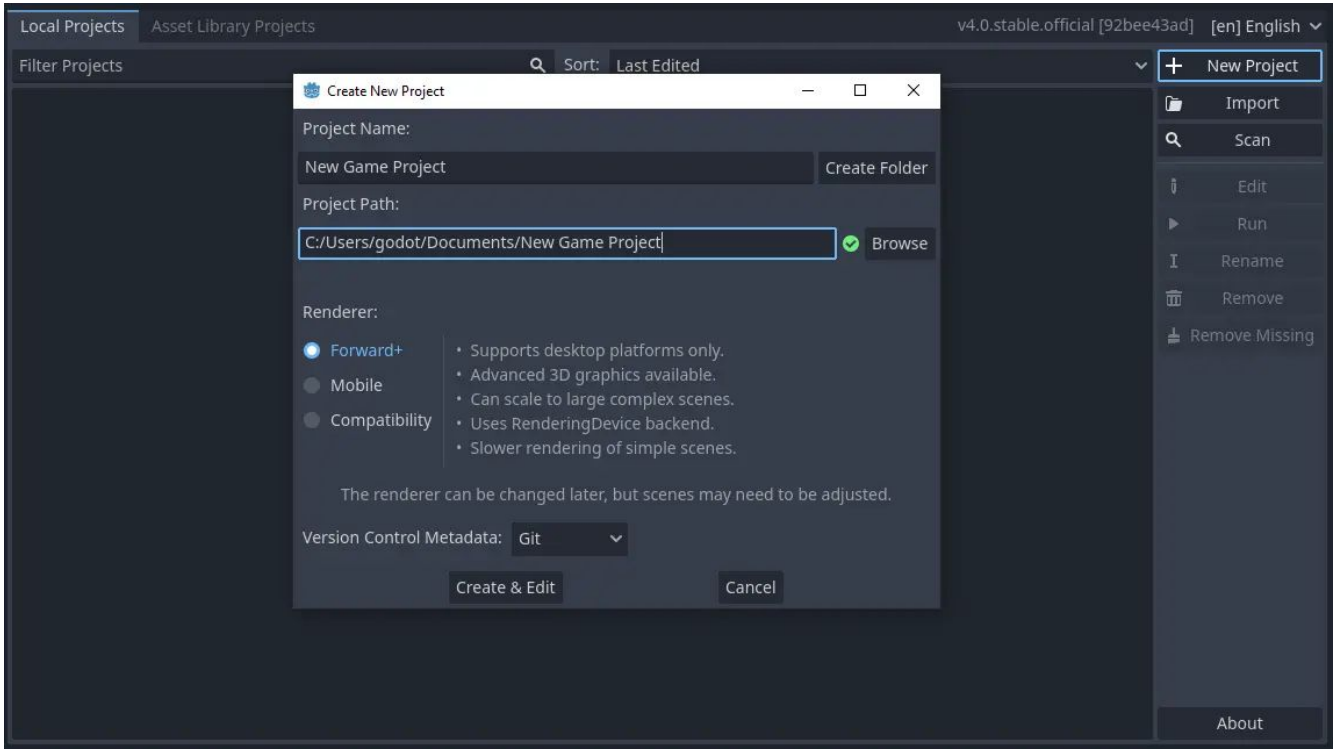
https://drive.google.com/file/d/1OXWWmPH7vS84S9Wk3qADSdx8hnyleEpi/view?usp=sharing

Engine installation



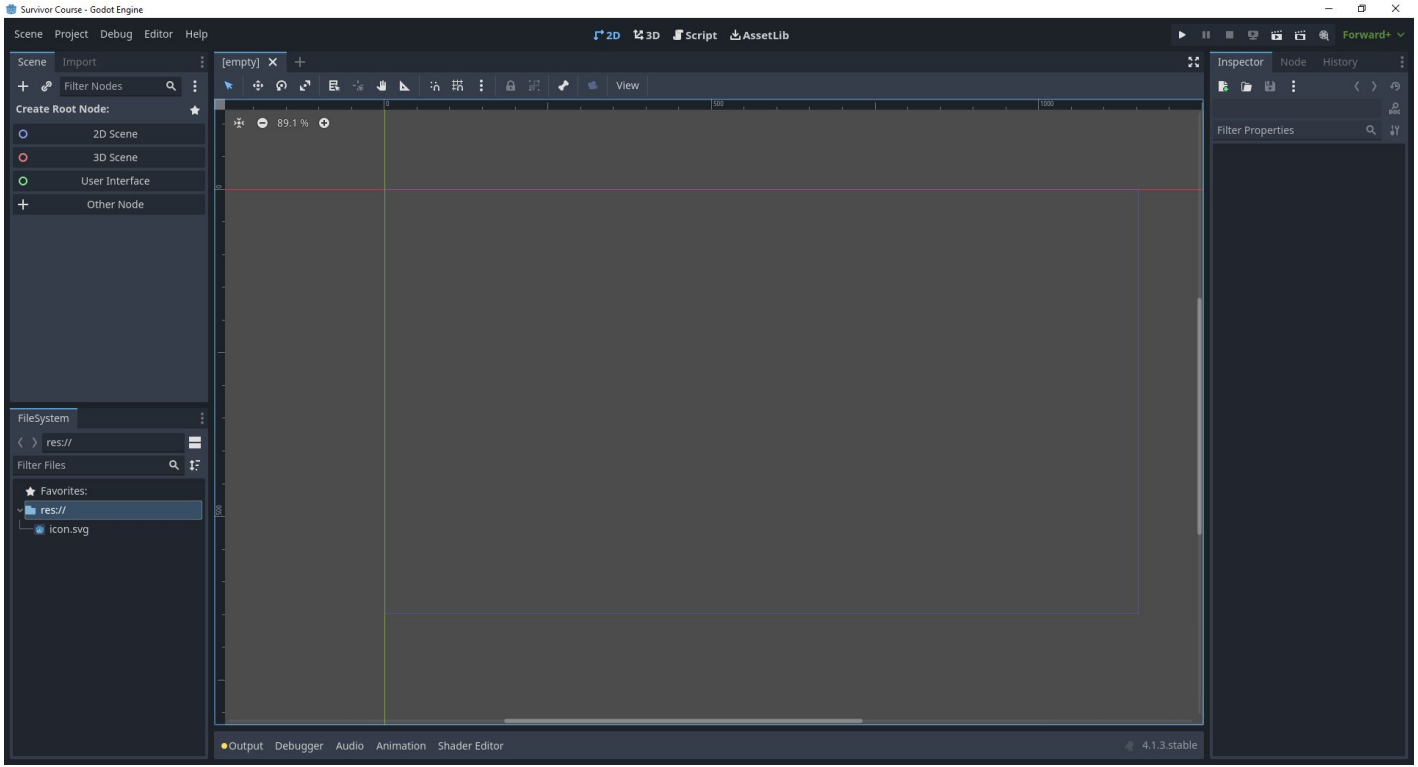
https://godotengine.org/

Create project

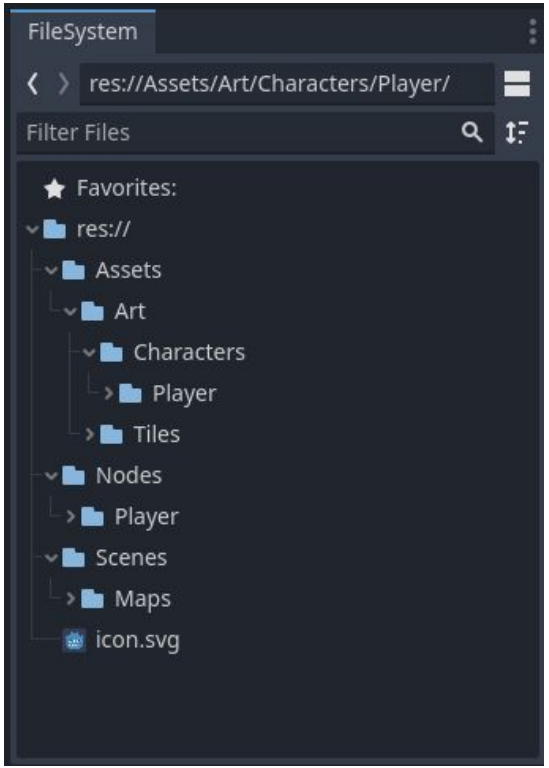


https://docs.godotengine.org/en/stable/tutorials/editor/project_manager.html

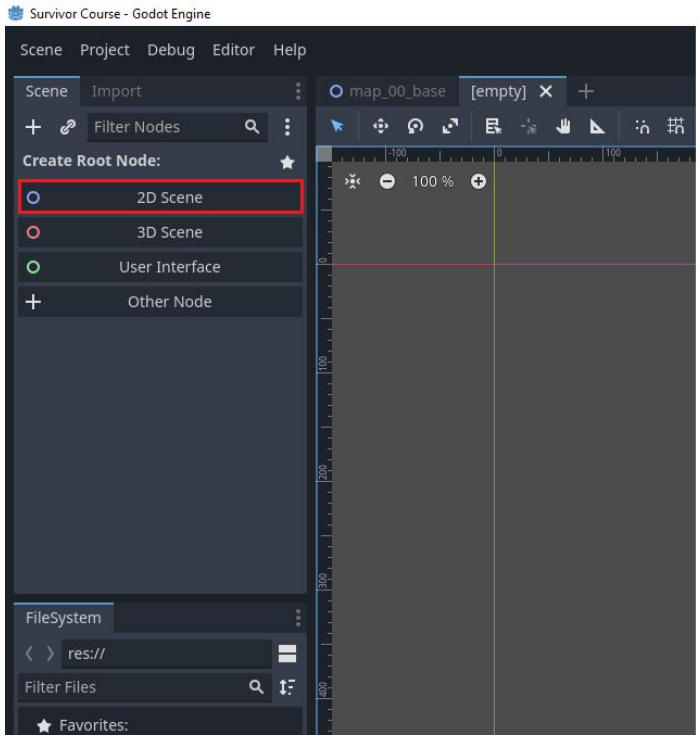
Godot interface

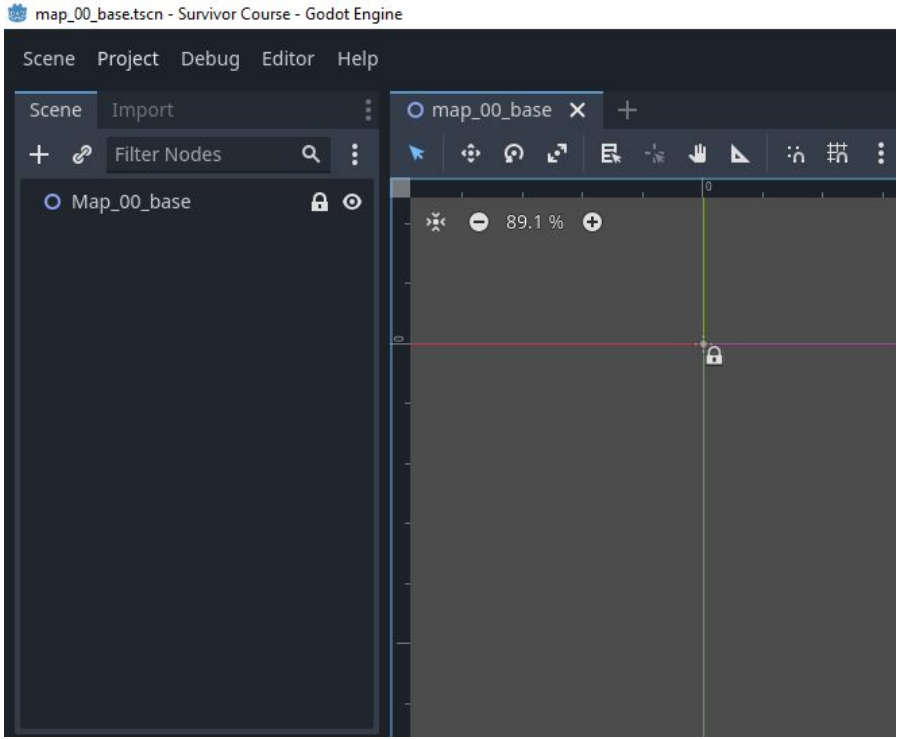


Project structure

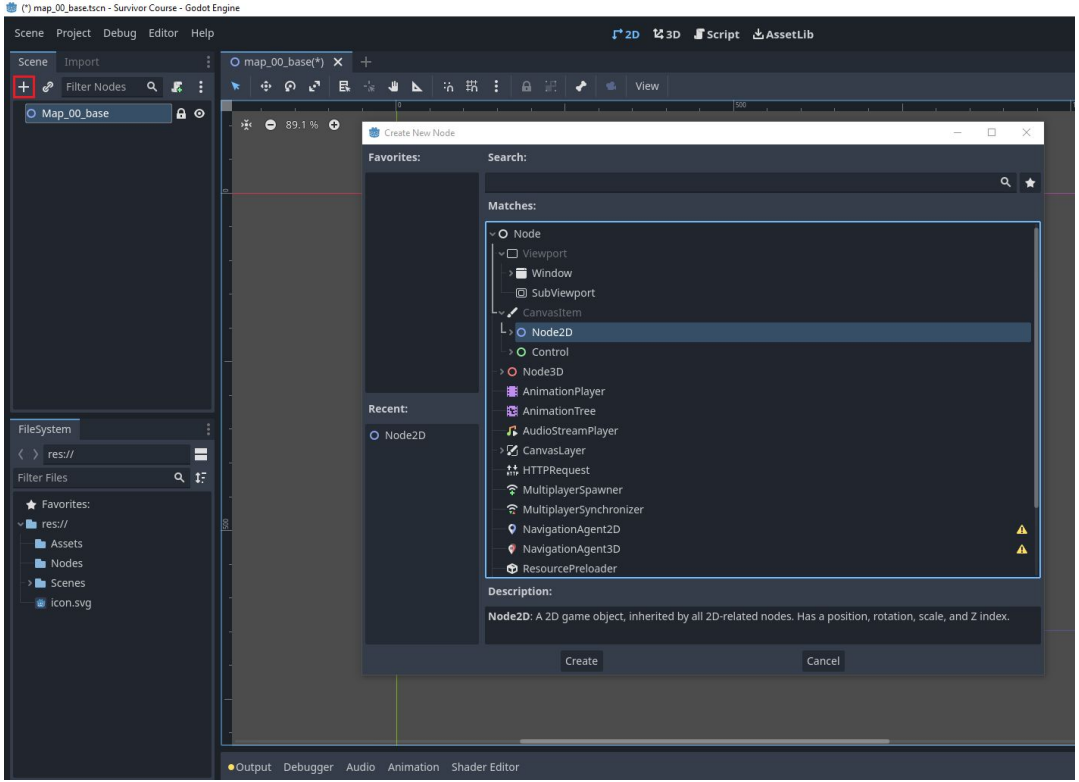


Create scene





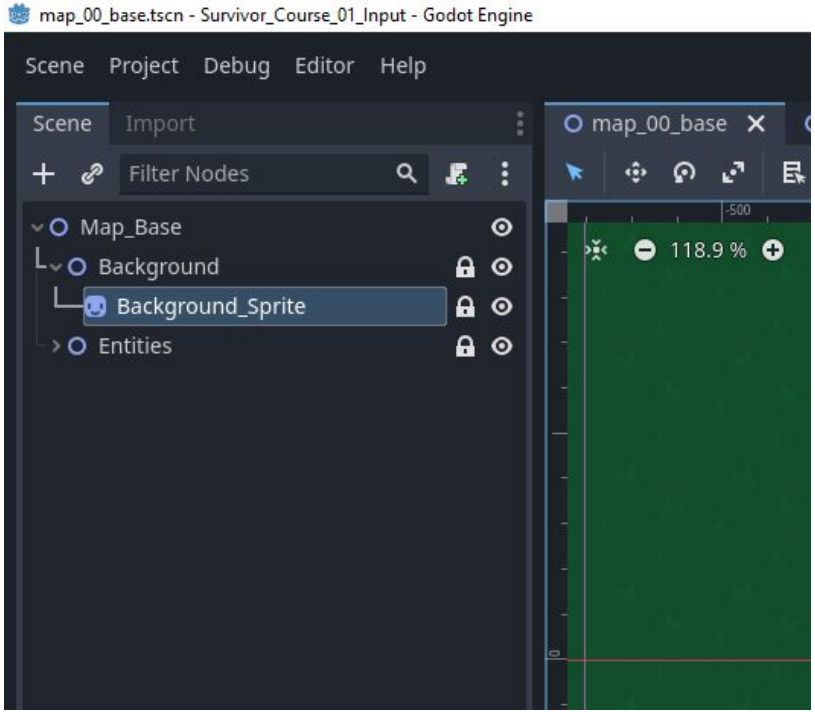
Add Node



https://docs.godotengine.org/en/stable/getting_started/step_by_step/nodes_and_scenes.html#creating-your-first-scene

https://docs.godotengine.org/en/stable/getting_started/step_by_step/nodes_and_scenes.html

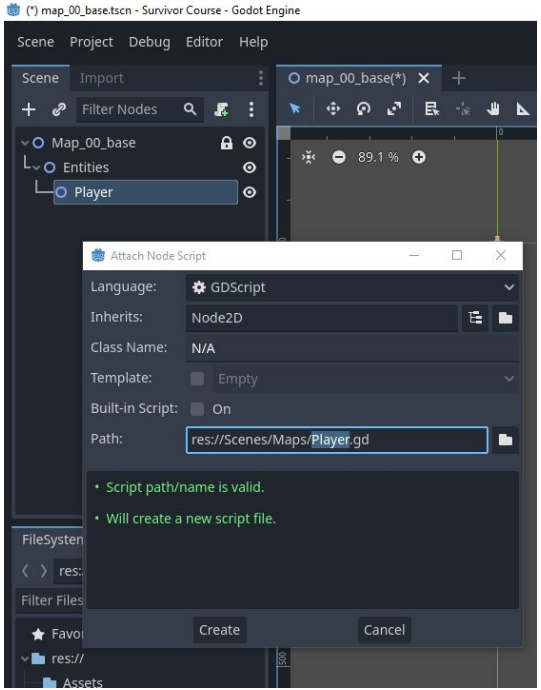
Background



Background: Node2D
- Modulate

Background_Sprite: Sprite2D
- Region
- Texture.Repeat

Player - Attach script



https://docs.godotengine.org/en/stable/getting_started/step_by_step/scripting_first_script.html

https://docs.godotengine.org/en/stable/tutorials/scripting/gdscript/gdscript_basics.html

Player Input

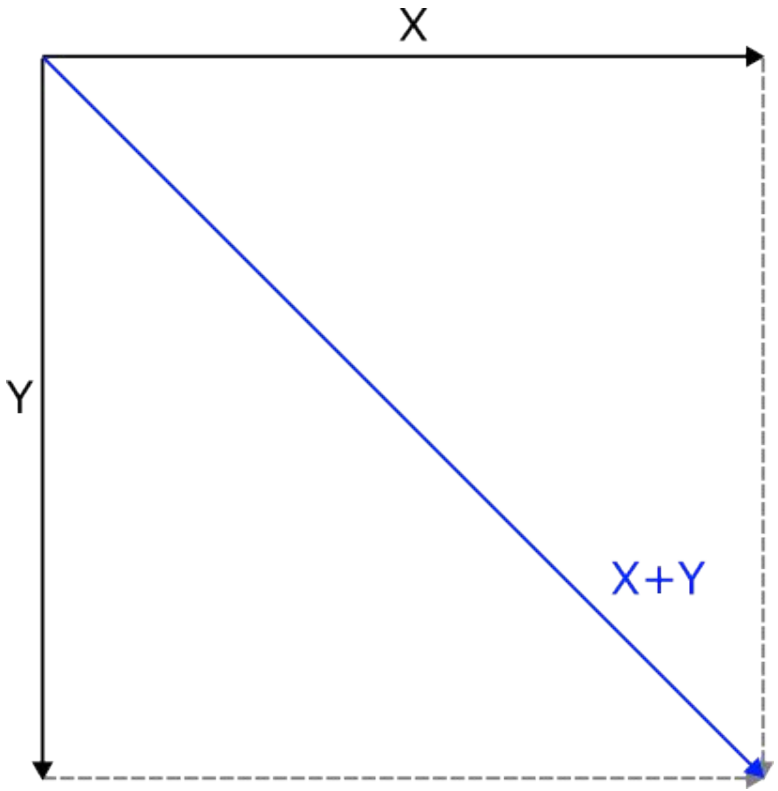
https://docs.godotengine.org/en/stable/tutorials/inputs/input_examples.html

https://docs.godotengine.org/en/stable/tutorials/scripting/gdscript/gdscript_exports.html

https://docs.godotengine.org/en/stable/tutorials/inputs/input_examples.html#inputmap

```
1.  class_name Player
2.  func _input(event)
3.  func _inputKey(inEventKey: InputEventKey) -> void
4.  match inEventKey.keycode
5.  inEventKey.is_pressed()
6.  position += Vector2.UP
7.  @export var moveSpeed: float
8.  func _move(inDirection: Vector2) -> void
9.  func _process(delta: float) -> void
10. Input map
11. func _inputAction(inEvent: InputEvent) -> void
12. inEvent.is_action(&"MoveUp")
13. var actionMask: int = 0
14. inEvent.is_action(&"MoveSprint")
```

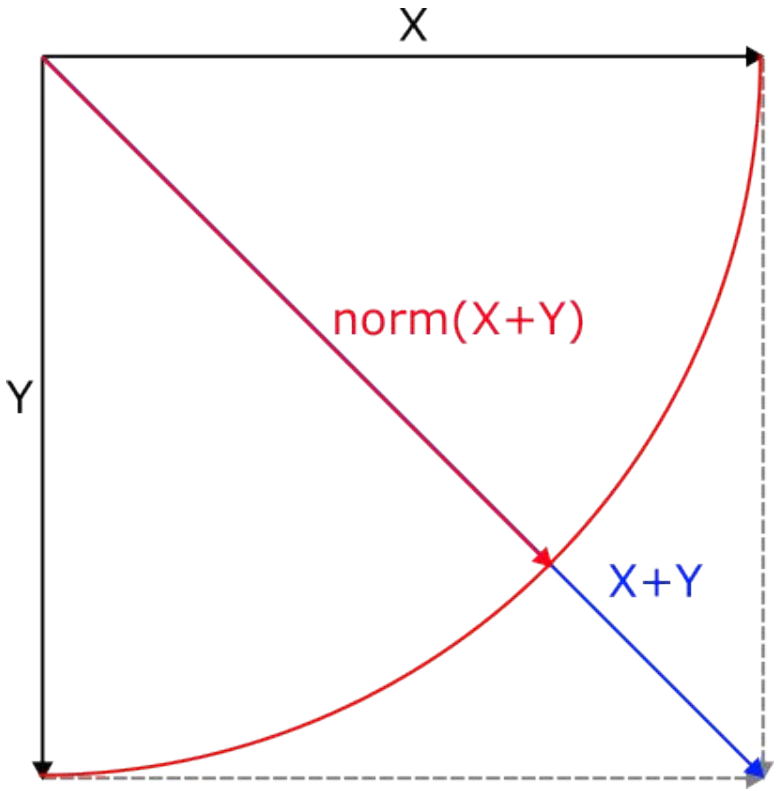
Input direction - math



X = (1.0, 0.0)
Y = (0.0, 1.0)
X+Y = (1.0, 1.0)
|X+Y| = (1.0, 1.0).length() = √(2) ≈ 1.41

1.41 > 1.0, czyli za dużo!

Input direction - normalization



X = (1.0, 0.0)
Y = (0.0, 1.0)
X+Y = (1.0, 1.0)
|X+Y| = (1.0, 1.0).length() = √(2) ≈ 1.41

1.41 > 1.0, czyli za dużo!

|(X+Y).normalized()| = 1.0

Links

Godot Engine	https://godotengine.org/
Project Manager	https://docs.godotengine.org/en/stable/tutorials/editor/project_manager.html
First Scene	https://docs.godotengine.org/en/stable/getting_started/step_by_step/nodes_and_scenes.html#creating-your-first-scene
Nodes and Scenes	https://docs.godotengine.org/en/stable/getting_started/step_by_step/nodes_and_scenes.html
First Script	https://docs.godotengine.org/en/stable/getting_started/step_by_step/scripting_first_script.html
Script basics	https://docs.godotengine.org/en/stable/tutorials/scripting/gdscript/gdscript_basics.html
Input examples	https://docs.godotengine.org/en/stable/tutorials/inputs/input_examples.html
Input map	https://docs.godotengine.org/en/stable/tutorials/inputs/input_examples.html#inputmap
@export annotation	https://docs.godotengine.org/en/stable/tutorials/scripting/gdscript/gdscript_exports.html