

SWE 585

HW#2 - Godot Game Engine

Godot Web Site: <https://godotengine.org/>

Godot Source Code: <https://github.com/godotengine/godot>

Overview: A competent game programmer need to know what is going on inside the game engine itself. Godot (*"t" is not pronounced*) is a high quality open source game engine maintained by a large set of expert volunteers. It has a small code base and relatively easy to follow architecture. (*"Small" & "Easy to follow"* when compared to Unreal for example, otherwise it is not a tiny code base at all)

Code base of Godot is written in C++ (Engine itself)

To code your own games in Godot you can use GDScript, C#, VisualScript, C and C++.

In this course, we will use Godot both for the gameplay part and more importantly for the game engine part. Aim of this homework is to let you touch with the Godot source code and architecture for the first time.

Steps:

- Get the Godot source code for 3.4.3-stable version,
- Check out the architecture https://docs.godotengine.org/en/stable/development/cpp/introduction_to_godot_development.html to see how much you can relate source code to this architecture.
- Compile it, (You'll need to use SCons, please see the links below) → can take ~20 min
- Make a tiny change and recompile it. Your change should not create a difference in functionality. Just change a text or add a dummy variable, etc.
- Obtain the executable,
- And run a game on it (any game you choose)

What to submit:

- Explain your code change (What was your change? where in source code?)
- SHA-256 hash of your second compile (not the vanilla compile)
- Screenshot of the game /gamescene with your preferred game.

Pointers and resources:

https://docs.godotengine.org/en/stable/getting_started/introduction/introduction_to_godot.html (Introduction)

https://docs.godotengine.org/en/stable/development/compiling/getting_source.html# (Getting source and compilation)

<https://www.youtube.com/watch?v=KjX511YZ5eQ>