

## **EE/CprE/SE 491 WEEKLY REPORT 7**

**Report period: March 27 - April 2**

**Group number: sddec23-13**

**Project title: Casters and Coders**

**Client &/Advisor: Mat Wymore**

### **Team Members/Role:**

- **Brennan Seymour**
- **Branden Butler**
- **Theng Wei Lwe**
- **Wenqin Wu (Cody)**
- **Edward Dao**
- **Max Bromet**

### ○ **Weekly Summary**

*This week, our group worked on the Design Assignment and lightning slides. We discussed possible design elements the game could incorporate, including the artstyle, technical complexity, game engine, and scripting language of choice. GoDot is looking like a very solid option to develop the game. Basic in-game scripts will be written and implemented using GoDot's built in scripting library (GDScripts). More complex programming will be written in C#.*

### ○ **Past week accomplishments**

- **Wenqin Wu:** For the past few weeks I have designed a storyline for the game, and roughly had an idea where to insert our programming concepts that we are trying to teach, also brainstorming the chapters and milestones of the game.
- **Theng Wei Lwe:** Did GoDot tutorials. Learned to make a simple 2D game. Started with a small prototype. Learned about GoDot Scripting, nodes, and scenes - Elements that make up a simple 2D game.
- **Brennan Seymour:** Over spring break, I figured out how to use Godot's build tool Scons, and worked with the GDExtension API to write dynamic C++ libraries which interface with the engine. This took a ton of time, just over eight hours. The idea behind

this was to integrate with the C API on the native Python interpreter, creating a wrapper in C++. However, the Python interpreter struggled to initialize when called from a dynamic library. I might look into a statically compiled extension, but documentation for that is sparse. In the weeks after spring break, I spent some more time thinking about how puzzles might function technically and brainstorming a framework to guide future puzzle design.

- **Max Bromet:** I worked on a godot tutorial, and started working on a simple prototype. I learned a solid bit about GDScript doing this. I also worked on clarifying and refining who our target audience is, based on the feedback that we had during our presentation.

- **Branden Butler:** The kotlin module developers got back in touch and added reflection support. This week I tested that new release, but still ran into issues with Kotlin scripting. This time it's because the compiler has a dependency on a single class from Swing, and godot does not include Swing. Once more, I declare kotlin nonviable.

- **Edward Dao:** Started working on through a godot tutorial from their website based on designing a 2d game. I was also assigned the role of puzzle designer/concept artist. I plan on working on puzzles for the next few weeks of potential puzzles users could do within our game.

- Pending issues

N/A

- Individual contributions

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Branden Butler	Experimented with Kotlin Godot bindings	2	33
Wenqin Wu	Keep going on experimental project	5	23
Edward Dao	Started a Godot 2d tutorial	6	21
Theng Wei Lwe	GoDot 2D tutorials. Game prototype	8	25
Max Bromet	Worked on Godot tutorial, worked on target audience	5	22
Brennan Seymour	Worked with GDExtension C++ bindings, and did some puzzle sketching.	10	34

- **Comments and extended discussion**

N/A

- **Plans for the upcoming week**

- **Wenqin Wu:** Keep brainstorming the educational end stuffs, like what to do with the milestones and where to insert concepts into our games.
- **Theng Wei Lwe:** Try to incorporate storyline into base game design. Look into more potential free sprites and tiles to use for the game.
- **Brennan Seymour:** I want to develop a curriculum of concepts to teach, which we can base puzzle designs on.
- **Branden Butler:** Look into Python bindings via PluginScript
- **Max Bromet:** Keep looking into Godot. Start working on puzzle designs and help with storyline.
- **Edward Dao:** Brainstorming ideas for puzzles user could be solving for our game

- **Summary of weekly advisor meeting**

N/A