Progress Report

- Increment 1 -

Group #5

1) Team Members

*Please write the **name** of all the team members, their **FSU IDs**, and **GitHub IDs** here.*

- William Couture | wpc21 | wcouture
- Stefano Sanidas | sas19t | stefanosanidas
- Aidan McGill | amm18z | amm18z
- Aiden Allen | awa22 | awa03
- Rafael Cardoso | rdc21c | smart00th

2) Project Title and Description

Inoculation

Inoculation is a medical themed tower defense game that takes inspiration from the Bloons Tower Defense series and the Plants vs. Zombies series. The game features an interactive menu using a moveable character to select levels or other menus. Before entering a level, a set of towers must be selected to be brought into the level. The player will use an in-level currency to purchase towers to place around the track. Within the main menu, the player will have another form of currency which can be used to unlock new towers.

3) Accomplishments and overall project status during this increment

In its current state, we have a functioning main menu with a controllable character and interactable NPCs. Additionally, we have a framework for level design and enemy pathing throughout the level. This framework allows us to easily layout a path for each level and to specify the enemy types which should be spawned for the level. This will help us to quickly design multiple levels without having to start from scratch each time.

4) Challenges, changes in the plan and scope of the project and things that went wrong during this increment

- Because the project was created in a previous version of unity, some issues arose while attempting to open the project in other versions. This issue was resolved through the re-cloning of the repository as well as installing the specific version which the project was originally created in.
- We went through changes during the initial planning for this project. We were indecisive at first, and talked over what video game genres we know best and discussed the consequences of following a particular genre. Eventually, we voted to follow the action-rpg genre and the tower defense genre since it was low in scope and comes with less complicated challenges. However, our idea has organically morphed to meet our vision for the project and the action-rpg elements have been severely limited to only a few aspects in movement and level selection. The decision issues we faced during these challenges were solved by using communication and democracy.

5) Team Member Contribution for this increment

a) *the **progress report**, including the sections they wrote or contributed to*
b) *the **requirements and design document**, including the sections they wrote or contributed to*
c) *the **implementation and testing document**, including the sections they wrote or contributed to*
*d) the **source code** (be detailed about **which** parts of the system each team member cont:ributed to and **how**)*
*e) the **video or presentation***

- **William Couture**
    - Within the progress report, I wrote the plans for the next increment as well as contributing to the project description section.
    - Within the requirements and design document, I described the functional and nonfunctional requirements of our game.
    - In the implementation and testing document, I touched on the non-execution-based testing we did including the code walkthroughs after feature implementations.
    - I was responsible for the implementation of the pathing system within each level and how level data is stored like enemy types.
- **Stefano Sanidas**
    - Within the progress report, I wrote my contribution for this increment.
    - In the requirements and design software document I made the Use Case Diagram, the third Sequence Diagram and wrote the Operating Environment portion.
    - In the implementation and testing document I wrote the Execution-based Functional Testing section.
    - In the video I talked about the process of choosing the genre to focus on and then further conceptualizing what the game would look like.

- **Aidan McGil**
    - I was responsible for the implementation of the menu UI which included trackers for both forms of currency, and a working NPC dialogue system.
    - Within the Software Requirements and Design Document, in the Assumptions and Dependencies section, I detailed some of the things that our project relies upon that could potentially be issues if they don't perform as expected.
    - Within the Software Requirements and Design Document, in the Class Diagram and/or Sequence Diagrams section, I added to the Class Diagram the portions of code that I completed.
    - Within the Software Requirements and Design Document, in the Functional Requirements section, I added some functional requirements for our project.
    - Within the Software Requirements and Design Document, in the Operating Environment section, I detailed some of the operating systems that our program targets.
    - Within the Software Implementation and Testing Documents, in the Platforms, APIs, Databases, and other technologies used section, I added a piece of software that we use for our project.
    - Within the Software Requirements and Design Document, in the Class Diagram and/or Sequence Diagrams section, I completed and submitted a link to the first of three sequence diagrams

- **Aiden Allen**
    - I was responsible for designing and implementing the player movement system. This task included designing the player body, as well as the script to transform the players position.
    - I designed assets such as the bed, a temporary character, a bus, as well as a tv animation for the lobby screen.
    - Additionally I designed a debugging overlay in order to complete both functional and non functional testing requirements.
    - Within the progress report I expressed my contributions to this project, as well as assisted in the creation of the video.
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- **Rafael Cardoso**

- I contributed to the fourth section of the progress report and deliberated on the possible challenges or changes we have faced with our project thus far.
- I contributed to the seventh section of the requirements and design document by expanding on what factors or aspects of this project that we must depend on in order to optimally continue working.
- For the implementation and testing document, I worked on the first section and explained our choice of programming language, and the reason why we chose it.
- For our project's systems, I was responsible for developing and implementing code that switches between scenes or for lack of better words, load levels. I accomplished this goal by using the scene manager library and its commands to write code that changes the current Unity scene to the scene named within the brackets of the level switching code. Afterwards, I would then implement this code by tying to the player's hitbox and any door's hurtbox, making it so that when the user enters a door, it fires off the previously mentioned code and changes levels.

6) Plans for the next increment

For the second increment we plan to continue to implement the features which we have documented throughout increment one. This is when we plan to implement all the base systems of the game which everything else will be built on top of and expanded upon. We plan to have a fully functional prototype of our game by the end of increment two with a small set of levels, towers, and enemies.

7) Link to video

https://youtu.be/R8xNB_RbH4o