Progress Report
- Increment 2 -
Group #2

Please use this template to describe your progress on the group project in the latest increment. Please do not change the font, font size, margins or line spacing. All the text in italic should be removed from your final submission.

1) **Team Members**

   (Name, FSUID, GITHUB)

   Caroline Mangrum, cjm22y, SweetCarolineTM
   Miles Brosz, mjb21h, MilesBrosz
   Grant Leatherman, jgl22a, Fueguin5
   Joseph Riley, jbr21a, JosephRileyFSU
   Kendall Fretwell, kfl21a, kfrtwl

2) **Project Title and Description**
   The title of our project is Sketch & Strike. Sketch & Strike is a simultaneous turn-based game where 2 players battle on a player created/altered terrain. Players can draw weapons, move around, attack, and alter terrain. Our project implements socket programming to allow users to connect to a server and play against each other.

3) **Accomplishments and overall project status during this increment**
   During the second increment we achieved many goals set for the second increment and still managed to remain within the initial scope for the project. Some of the main accomplishments are listed below.
   Successfully implemented Server and Client connection from different IP addresses
   - We added on to the Server and Client Connection so that it now includes the functionality of two different players being able to connect to a server through different IP addresses.

   Added Join game and Host game functions to the program

   - Another goal that we achieved in this increment is the completion of the Host Game and Join game functions. This allows players to either host a game or join a game with their own chosen source and destination
   Continued development and improvement in turn implementation as well as other functions to help with the overall main game loop
   - Created the weapons object type to store different weapons players might choose
   - improved calculations to update terrain and help with terrain calculation
   - improved functionality on player movement

4) **Challenges, changes in the plan and scope of the project and things that went wrong during this increment**
   The main challenge we faced this increment that took longer than initially anticipated was successfully implementing the Join Game and Host game functions from different IP addresses so that players could make their own IP's and join game destinations. We had the framework for this laid out in increment 1, but it took longer than expected to fully implement and debug. We successfully solved this problem as of now and remain on track to finish the project on time.

5) **Team Member Contribution for this increment**

Caroline Mangrum: Contributed to the requirements and design document. Created an updated physics and player tacking to help with movement and terrain calculations. Contributed to the project design process, Communicated effectively with the rest of the team.

Miles Brosz: Created the video for the progress report. Contributed to the IPandPortInputCollection which addressed join game and host game functions. Contributed to the project design process. Implemented improved network and server architecture, communicated effectively with the rest of the team.

Grant Leatherman: Produced the implementation and testing document, contributed to the IPandPortInputCollection which addressed join game and host game functions, contributed to the project design process. Communicated effectively with the rest of the team.

Joseph Riley: produced the progress report except for the video. Improved the turn implementation branch which addresses what happens on each turn for both players. Incorporated the Weapons class which allows players to choose and store a weapon. Contributed to the project design process. Communicated effectively with the rest of the team.

Kendall Fretwell: contributed to the requirements and design document. Improved move functionality for players. Communicated effectively with the rest of the team. Contributed to the project design process.

6) **Plans for the next increment**
   Our plans for the next increment are to finish the project. This entails finishing the turn implementation, terrain calculations, move functionality, drawing, health and damage calculations, settings menu, and all other issues in the issue tracker. We plan to have a fully functional game that encapsulates the project's vision by the end of the next increment.

7) **Stakeholder Communication**

   Dear Stakeholders,

   I hope all is well; we are writing to provide you with an update on the progress and current status of the project.

   We have made decent progress this increment in achieving the project's goal. We created a way for two different players to host and join a game so that they can do so from different IP addresses. We have continued improving and developing many core mechanics of the game such as turn implementation, terrain and player calculations, as well as player movements.

   We continued development on some of the background processes that help the game function overall. Currently, we have an application where two different players can connect to a server that runs our game. The players are allowed to choose and alter the host IP for the game, and which game they want to join. Players can also move simultaneously to each other.

   We are still within the timeframe to complete the project on schedule. Next increment will be more coding heavy as we plan to finish the project. We still expect to finish all the app's desired features like turns, drawing, damage calculations, and terrain manipulation. By the end of the next increment, we plan to have a fully functional simultaneous multiplayer game that aligns with the project's initial goals and intentions.

   This increment, we encountered our first problem with the Host game and Join game functionality for the app. We started the foundation for this process in increment 1, but it ended up taking more time than initially

anticipated. We successfully debugged and finished that part of the project, and remain on time scheduling wise, while also maintaining the original scope of the project.

We will be committed to communication and continuous improvement of the project overall. Regular feedback and open dialogue are key factors in our development process. Your insights are extremely valuable, and we will continue to integrate your feedback into the project.

Thank you for the support and trust you share with us in the development of this project. Please reach out to us if you have any questions or need further information.

Sincerely,

Group #2

8) Link to video
https://youtu.be/tSF0NUceR8A