

Stage 2: Project Problem Statement

Game Platform

Team Members:

Kevin Bornemeier, Josiah Salas, Michael Garcia, August Sandoval

Our CS 371 group project is a graphical user interface (GUI) game platform that hosts multiple games for the user to choose from. The user should be able to choose from three fully functional games to play. When a game is chosen, the user should be able to play the game or return to the main menu. Implementing this game platform will require constant checking of user input and constant updating of output. Other problems involved in implementing this project are linking the games together with the main menu GUI and making each game fully functional. Each game will present multiple problems for our group to solve. Below is an example of the problem domain of Pong, one of the games that we plan to create.

The next problems that we see arising in the project is making sure the platform can host the games seamlessly. The platform should be able to run each game while not at the same time without a problem. For instance, the platform should be able to handle most errors the games or users throw at it without self-termination. Errors that are more likely to show up are Invalid Commands and Game end errors. Examples are trying to run a game not listed, and any errors that are not caught by the running game.

There will be a few problems that we will encounter when we are developing the games. Starting with pong, one problem is that the game needs two players. Another problem is that we are going to have to make an area that the game will be played in, sort of like a container and it will be a rectangular shape. Another problem is that we need to make sure the scores get updated correctly when a player scores, and that the game ends once the score limit has been reached. We

also need to make sure that the controls make sense for player one and two. We need to make sure that the game recognizes when a player starts or stops pressing the key that moves their paddle. The ball must also collide with the barriers and the paddles correctly. The UI needs to be good so that players will know how to start the game and change the game's setting to their liking. We need to make sure that the HUD is good and displays all the important information that the players will need without it being a distraction. We also need to make sure that the game runs fast, smooth and is responsive.

The next game, Tic-Tac-Toe. The problems that could arise for this game is the Interaction with the user. The main problem is in making sure the interface for the game is easily understandable and approachable for the user. The reason this is a possible problem is that if the interface is hard to understand then the game will become unplayable. Leading to the players making a wrong move or players getting confused on who's turn and leading to a possible false win or loss.