Project 5 Documentation

Team Number: 15

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For this project, we will be creating a tank multiplayer game using Node is. We plan to learn the open-source environment in order to develop this project for the class. Concerning the client/server relationship, we will implement a lobby where the players will join and wait for the game to start. The game will start when four players are connected and are present in the lobby. Once the game starts, the screen will shift from being in the lobby to being in game. The arena will consist of four tanks, one tank representing each player. Obstacles will also be present for coverage, and each tank will be equally spaced out from each other. In this case, each player will start in their own corner. As the game starts, each player will be able to attack, or shoot, with their tank. They should also be given the ability to move around the arena in order to fight. As a team, we are still unsure whether to implement a health bar for each player which allows a player to get hit multiple times, or to have each tank be very vulnerable and lose after getting hit once. The match will end once there is only one tank left standing, but the real winner of the game will be the one who obtains 3 points (1 point per winning a match).

With all of this in mind, the user interface will be more interactive compared to what we had for Project 4. Since this game will indeed be more of a constantly changing game in terms of how players interact with one another, we will have to implement a UI that can allow players to easily go on about with their choices they make in the game.

The server will send messages back and forth with the clients in order to keep the game constantly running at real time. It will receive messages to see which client is still "alive" and then will determine if the match is over since there will be one tank left.

We hope to make the project very user friendly and easy to use while also making it look very presentable.