High Level Requirements:
1. The game will run on desktop
2. The game will be created using the Unity game engine
3. The game will be written in C#
4. The game will be able to connect to the local network
   ○ The user can choose to host or join a game via the local network
5. Each round in the game will be limited to a short amount of time (3 minutes)
6. The game will display a homepage
   ○ The use will be able to select buttons for singleplayer, host a game, join a game, customization, and settings
7. The user can select from a variety of tank equipment and options before the game begins
8. The user can customize their tank before the game begins
9. The user can set and change their username
10. The game will randomize the map before each game begins
    ○ The game is initialized with a flat plane with random elevation changes and trees/bushes/grass
11. The user will view their tank from a 3rd person perspective
12. The game ends when one user causes the other user's health to drop to zero
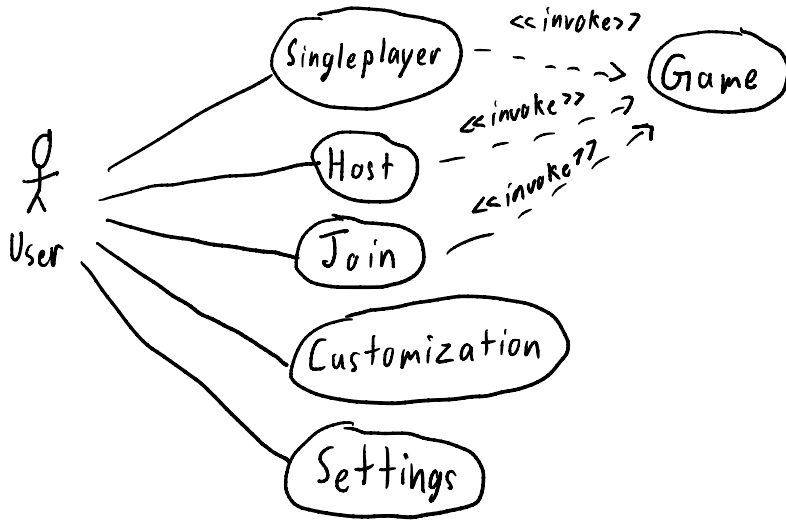
User

Homepage

Singleplayer

Host

Join

Customization

Settings

Game
- Tank
- Map
- Health

Local Network

Tank
- Equipment

Singleplayer

<<invoke>>

Game

Host

<<invoke>>

Join

<<invoke>>

Customization

Settings

User

Main use cases are Host and Join, both invoke Game.
Singleplayer may or may not be implemented as we want multiplayer built first.

Basic Course: Join

The system displays the main menu after loading the game. The User then clicks on Join lobby. The system then checks the user's internet connection before going to the next menu. The system then displays the Join screen. The user can then join a lobby by using a join code. The user then displays the start game screen and both players load into the game.

Alternate Courses:

No internet: The user has tried playing multiplayer without a valid internet connection. The system displays a noInternetError and takes the user back to the main menu.

Invalid join key: The user has entered an invalid join key. The system then displays a InvalidJoinKeyError. The system then takes the user back to the Join game page.
User Leaves: When either user leaves the lobby is disbanded. All remaining users will be sent to the main menu with a Lobby Disbanded error message.

Basic Course: Host

The system displays the main menu after loading the game. The User then clicks Host lobby. The system then checks the user's internet connection before going to the next menu. The system then displays the Host screen. The user is then shown there lobby code. When a user joins the lobby, the host will be notified. The system then displays a start game screen and both players load into the game.

Alternate Courses:

No internet: The user has tried playing multiplayer without a valid internet connection. The system displays a noInternetError and takes the user back to the main menu.

Invalid join key: The user has entered an invalid join key. The system then displays a InvalidJoinKeyError. The system then takes the user back to the Join game page.

User Leaves: When a user leaves the lobby is disbanded. All remaining users will be sent to the main menu with a Lobby Disbanded error message.