# Multiplayer Game Website 

CS480 Senior Project Proposal
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## Introduction:

The goal of this project is to create a website which houses a multiplayer trivia game. The website will allow users to either join a room to play by directly joining it (via a room code) or by searching a list of public rooms. Users will also be able to "host" their own rooms, which can be either public or private, and can be password protected. Also built into the website will be a chatroom, and users will be able to play anonymously (as "guests") or log into an account they created. Rooms will close once the last person leaves them. The server knows each room's name, unique room code, user count, and time created.

## Technology:

I'll be creating the website using html and javascript. I will be using Node.js and Socket.io in order to handle user input and update the view in real time. I will use MySQL to store the login information, and passwords will by encrypted using Bcrypt. I'll also be using JQuery to simplify the process of changing the page. Part of my goal with this project is to get a better understanding of the tools available for web design.

## Grading:

| Project Total | $\mathbf{1 3 0}$ |
| :--- | :--- |
| Website (Total) |  |
| Socket.io properly opens a socket for every active user | 5 |
| Public room list properly displays all open rooms | 5 |
| Room list can be refreshed | 5 |
| Rooms can be sorted by name, user count, or time created | 3 |
| Password protected rooms can be filtered out | 2 |
| Login feature works properly | 5 |
| Users can directly connect using a room code | 5 |
| Login information is correctly stored using MySQL | 5 |
|  | Chat (Total) |
| Chat updates in real time and works | $\mathbf{5 0}$ |
| Users only see messages from other users in their room | 20 |
| /whisper, /w command sends a message only to one person in the same room | 10 |
| /nickname, /nick command updates the user's nickname, if not a guest | 5 |
| /color updates the user's nickname color, if not a guest | 3 |
| Room host can /kick anyone out of the game room | 3 |


| A message is properly sent whenever a user joins or leaves a room | 4 |
| :--- | :--- |
| Trivia Game (Total) | $\mathbf{4 5}$ |
| Game displays and updates correctly for each user | 20 |
| Game doesn't crash or bug when a user leaves mid-round | 10 |
| Game keeps track of player score for as long as they remain in room | 5 |
| Users join the next round after joining room | 5 |
| Each round is timed, and score is based on quickness of answer | 5 |
| Questions are chosen randomly, and don't repeat during the same round. | 3 |
| Answers can be selected by being clicked on | 2 |
| Rounds last 5 questions, and score is displayed between rounds. | 5 |


| $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{F}$ |
| :---: | :---: | :---: | :---: | :---: |
| 120 or more | 100 or more | 80 or more | 60 or more | 59 or less |

