

This assignment will be a culmination of the technologies covered in this course. You may complete this assignment **individually or in groups of at most two members**. If you choose the latter option, **you must register your groups on coursys no later than March 23rd**.

DESCRIPTION:

We will be implementing a live two player 3d tic tac toe game: https://en.wikipedia.org/wiki/3D_tic-tac-toe

The basic requirements are as follows:

1. The home page of the game must have a user login and register. When a new user registers, they will be added to the database. When the user logs in, they will be directed to their landing page that shows their game stats thus far. They will also have the option of connecting to a new game. They will also have the option of Logging out of the game, which will redirect them back to the login/register page.
2. If the first player initiates a game, the game will wait. When a second player joins the game, the game will be initiated, and the first turn will be randomly chosen. The game will alternate turns until there is a winner (please see the rules of the game in the link provided). Either player can also quit at any time (this will show up as a loss).
3. At the conclusion of the game, the stats of the game will be recorded. You may choose to add any stats that you'd like but you should at minimum include:
 - time the game started
 - winner and loose of the game
 - number of moves
 - current record of each player (wins / losses)

DATABASE:

The basic requirements for the database is as follows:

- You must use the mongoDB database set up on the cmpt218 server.
- The User model must contain username, first name, last name, age, gender, and email. It is up to you how you would like to further set up your model.

Marking Scheme:

For this assignment,

- you may use frameworks such as jQuery, Ember, Angular, bootstrap, etc.
- you may use community packages on NPM such as Express, MongoDB, Mongoose, SocketIO, and Passport. You may not use game framework packages and packages that have already implemented similar games (for obvious reasons).

If you are unsure if something is allowed, please ask either Bobby or one of the TAs.

3 marks – proper login/logout. Including landing page

2 marks – proper registering.

5 marks – gameplay.

4 marks – records stats to database.

8 marks – creativity, effort, and usability: add features to make this app more usable. You may want create a 3d UI or add allow multiple games to occur at one time.

Please note: do not copy any code that you find online; if you use any online resources, please site it in the README file of your application. If you're unsure whether your submission is considered plagiarism, please ask me or one of the TAs.

Submission:

Your code and app URL should be uploaded to coursys and a running application should be present on cmpt218.csil.sfu.ca:<yourPort>.

Please note

1. it is very important that you only use the port that is assigned to you. Please double check this before you submit your assignment otherwise, your grade will be 0.
2. do not make any changes to your app after the due date, we will check your app's last modified date before marking