

## **Project: Multi-user interactive turn-based environment**

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*And now for closure...*

For this project, you will create an AJAX driven, compound document (probably SVG, or some other XML inside of xhtml) front end, PHP/MySQL (or whatever you choose) back ended turn-based environment.

In other words – When it is one players turn, only that player will be able to control the action until he signals that he is done, then it is the other players turn.

You will also need to build a login page (can be the same page as the game – or different page). Once they are logged in, they go to a waiting room (complete with AJAX chat) that needs to allow the players to choose a user to challenge to a game. Once challenged and accepted, both users go on and play the game (the actual game can be the same page or another page).

### **Requirements**

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- The interface will be a combination of SVG and HTML, but the game board drawn by SVG (not all elements have to be SVG, but the interactive board/area/environment will be SVG unless otherwise cleared with me!).
- The interface/environment will be created dynamically using php and a MySQL database.
  - Any data that is tested against the db will use mysqli->prepared statements!
- All players will know who's turn it is (driven by Ajax/database)
- Once that player is done, some mechanism will be triggered to allow the other player(s) to know.
- Give the option to start over at any time
  - What will this entail? (clearing of database, message to other players, etc)
- Any form you may use to bring in data MUST have validation (client and/or server side, appropriate to the type of validation – remember what client validation is for!)
- Environment you choose to build is up to you, but it must be interactive and turn based.
  - You have to clear what you choose to build with me – if you choose to change your game idea, you must inform me.
- Feel free to use any of the Web technologies you have previously learned (cookies, session variables, etc.) or some you learned on your own!
- Be complete – try to break your game and solve for these shortcomings ('cause you know I will try to break them!)
- The application will work in FireFox, Opera, Safari and IE9!
  - Remember that the animate tags might not work, so you will need to write JS to make any animations happen.
- Looks!!! (professional looking, quality graphics, etc.)
- Milestones (dates to be announced):
  - Written proposal (**Wednesday April 3<sup>rd</sup>** – last class of 5<sup>th</sup> week)
  - login/token/chat mechanism (~end of 7<sup>th</sup> week)
  - game board with some sort of remedial interaction (~end of 9<sup>th</sup> week)
- Yes, this is all somewhat vague – in many ways on this project, you are on your own. Show me what you can do!

- **DUE DATE: Thursday, May 16 @ 12:15pm (drop box in myCourses)**

### **Programming requirements**

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Shouldn't have to tell you, but...

- No layout with tables! Everything done with CSS
- Include comments in the code to clearly explain functionality.
- Re-direction of browsers that this doesn't work in
- You will turn in all of your work, including a MySQL dump of any used database tables along with a link to a working version

### **Grading**

An excellent project (worthy of an A) will have everything I'm asking for here, plus something extra - evidence that you intend to excel. Perhaps it explores an area we didn't cover in detail in class, or would merit me recommending you to a client who needed similar work done on a project.

To do better...

- Extend Functionality
- High Level of Technical Development
- Surprise me...
- As always, feel free to have me look at it with you early and I'll tell you how you're doing...