Test Skeleton

**Unit Testing Skeleton:**

Database:

- Defaults are maintained

- User is stored with correct fields and values

GET requests:

/api/login

- Returns all User data except the hashed password

POST requests:

/api/register

- Registers User using username, email, password, confirm\_password, and an optional account\_type

- Validates fields

- No fields can be empty, except the optional account\_type (defaults to user)

- Username must be alphanumeric

- Email must be an email address

- Password must be 6-32 characters, and passwords must match

- If username or email already exists, respond with appropriate error message

- Else, store in database with hashed password

- Responds with JSON Web Token and all User information except the hashed password

/api/login

- Logs User in with username and password

- Validates fields

- No fields can be empty

- If username does not exist, respond with appropriate error message

- Else, username exists, so hash provided password and compare to the hashed password stored in the database

- If they don’t match, respond with appropriate error message

- Else, respond with JSON Web Token and all User information except the hashed password

Game

- If answer to question is correct:

- Add points to local points sum

- At end of game:

- If mode is Online:

- Add local points sum to User

- If User is in a Team:

- Add local points sum to Team

**Integration Testing Skeleton:**

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| --- | --- |
| Task | Expected Result |
| Login Button | Should take you to a login area; then should take you to the game. |
| Signup Button | Should take you to a sign-up area; then should take you to the game. |
| Play Button | Should launch the game after you are logged in/create an account; it then takes you to main game menu. |
| Multiplayer/Group play Button | Should start the game. |
| Single Player Button | Should start the game. |
| Logout Button | Log you out and return you to home page |
| Exit Button | Return to game menu |
| Open the Website | Takes you to the homepage with the play button |

**End To End**

|  |  |
| --- | --- |
| Task | Expected Result |
| Go to website URL | Should take you to the website homepage |
| Register | Should take you to a register page |
| Sign in |  |
| Visit About page | Should display info about our group, our mission, and should show our company location on a google map. |
| Visit leaderboard page | Should display the leaderboard information. If you are logged in more information will be visible such as your account ranking. |
| Visit Donate page | Should allow you to donate money to the website. First your must enter credit card info, then click the donate button. |
| Click Play | If you are signed in it should take you right into the game. Otherwise you must create an account first, then it will take you to the game. |
| Click game mode (single player or multiplayer) | Will start the game in respective mode |
| Click answer to question in game | Will either be correct and give you points or be incorrect and not give you any points |
|  |  |

Regression testing:

* If change is made to the database/login system
  + Check database page
  + Log in to account
  + Sign out of account
* If change is made to the game
  + Click play
  + If not already logged in, do so now
  + Select single player
  + Play through a game
  + Exit to main menu
  + Select multiplayer
  + Play through a game
  + Exit to main menu