Test Skeleton

**Unit Testing Skeleton:**

Database:

- Correct default values should be maintained

- User information is stored with correct (validated) results

- Their email is an email, their password is hashed, etc.

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:

- 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 the login page. Upon login, user will be redirected to any redirect query parameter, or if none is present, their userpage. |
| Signup button | Should take you to the register page. Upon registration, user will be redirected to their userpage. |
| Play button | If user is not logged in, they will be redirected to the login page. Else, they are taken to the game selection page. |
| Solo game button | Should start a solo game with 5 questions of 4 choices. At the end of the game, user scores should update the information in the database for that user, and they should be prompted with a button to play again. |
| Online game button | Should start a Kahoot!-style game session. Not yet implemented. |
| Logout button | Log you out and return you to home page. Should also delete your token cookie. |
| “Back to game selection” button | Return to game selection page. |
| Visit the website’s URL | Should display the Fit or Fail homepage. |

**End-To-End:**

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| --- | --- |
| **Task** | **Expected Result** |
| Go to website URL | Display Fit or Fail homepage. |
| Register/Sign in | Should take you to the register/login page and issue you your user token after successful registration/login. |
| Visit userpage | Should display information about the user who’s userpage you are visiting, such as total points, wins, correct answers, etc. If the user visiting the page is logged in and they are on their own userpage, the user will see a “You are logged in” message. |
| Visit about page | Should display info about our group, our mission, and should show our company location on a google map (currently a static image). |
| Visit leaderboard page | Should display the leaderboard information, showing the top 10 users sorted by their points value. 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 you 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 Solo or Online | Will start the game in respective mode |
| Complete game by answering all questions. | “Game over” page that displays scores for that game. Options to exit back to game selection page, or complete another round of the game. |
| Sign out | Redirect the user to the site’s homepage and delete their token cookie. |

Regression testing:

* If change is made to the game
  + Click “Play” to go to the game selection page
  + If not already logged in, do so now
    - If you do not already have an account, create one
  + Select “solo”
  + Play through a game
  + Click “Play” to go back to the game selection page
  + Select “online”
  + Play through a game
  + Ensure that everything throughout these processes is functioning properly