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CS 161 Section 01
Professor Tsao
12 May 2024

Week 14: Individual Report

Project Title: Memory-Math

Progress Summary:

- **Final Status of the Project:**
 - I have completed the features that I listed in the Product Design Specification. I have completed the User Authentication (Login, Signup, and Logout), the Tiles Game, the Hint Feature, the Solve Feature, the Game Instructions, the User Admin Privileges (Changing User Status and Deleting Non-Admin Users), the Timer, the Mistakes Counter and Saving the User Statistics. However, I didn't turn the tiles red when the user selected the tiles that incorrectly answered the questions, instead I just flipped them back around without changing the color. On top of that, for the admin privileges, the admin can only change a non-admin user to admin or delete a user one at a time, rather than select multiple users.
- **Check Status:**
 - **How to check status of product:**
 - Navigate to dev/frontend. Once in the folder, install the dependencies by running `npm i`. Afterwards, run `npm start`. Go to `http://localhost:3000` to test the front-end.
 - Navigate to dev/backend. Once in the folder, install the dependencies using the `requirements.txt` file. Afterwards, run `python3 server.py`. Go to `http://localhost:5000` to test the back-end.
 - You can now interact with the product and see the status of it
 - **How to check weekly progress of product:**
 - Navigate to commit history:
<https://github.com/4reebah/memory-math/commits/main/>
 - Here you can see the commits made, the time they were posted, and the author of each commit.
 - **See code changes:**
 - For a given commit on the commit history page click on the commit id to see code changes and more details

Deployed Links:

- **Frontend Link:** memory-math.vercel.app
- **Backend Link:** I had issues deploying the backend, since I couldn't add the database. I will continue working on deploying the backend.

- Note: I asked for an extension for the deployment through email.

Helps, Feedbacks or Suggestions I have received to my Colleagues:

- **Individual Project:**

- Gargi: Add a section on the Game End Screen for guest users that allows the users to sign up for an account and save their performance/score.
 - I will add the section in the long-term.
- Fariha: Implement some scoring mechanism so that a user can track how well they do over multiple games.
 - I implemented a feature that allows the users to track the amount of time they took to complete the puzzle and number of mistakes the user made during the puzzle.
- Professor Tsao: Add levels of difficulty for the puzzle.
 - In the long-term, I could add levels of difficulty, such as varying the arithmetic questions to have subtraction or multiplication.

- **Group Project:**

- We received a ton of feedback for our group project throughout the semester. Here is some of the feedback we received is:
 - **GeoUnity:** Explain tokens feature to users prior to account creation - We categorized the feature into long-term.
 - **Jump And Launch:** Rename the title of the website from the “React App” to “X Marks the Spot” and forget password feature. - We implemented these into our application.
 - **Professor Tsao:** Sample game would be nice so users can get a taste of the product before creating accounts and joining. - We categorized the feature into long-term
 - and more.
- We were able to implement some of the feedback. We also categorized some of the feedback as a long-term implementation.

Valuable Enhancements of your Product that Cannot be Implemented this Semester:

- In the future, I could add other levels of difficulty, such as a puzzle that includes arithmetic questions with addition and subtraction. I believe it would be useful, since it would allow the user to improve subtraction skills, on top of the addition skills.
- I could also add a section Game End Screen for guest users that allows the users to create an account and save their statistics, since it could incentivize the guest users to create an account.
- In the future, I could also add a game history, so that users can view the statistics of each game to see the changes in improvement over time.