

Auditory Training App!

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PROBLEM

Auditory training is necessary for adults with hearing loss who have received a cochlear implant. Existing auditory training resources include non-interactive audio books and tapes, as well as a handful of apps that fail to provide engaging exercises with adequate difficulty scaling for cochlear implant patients.

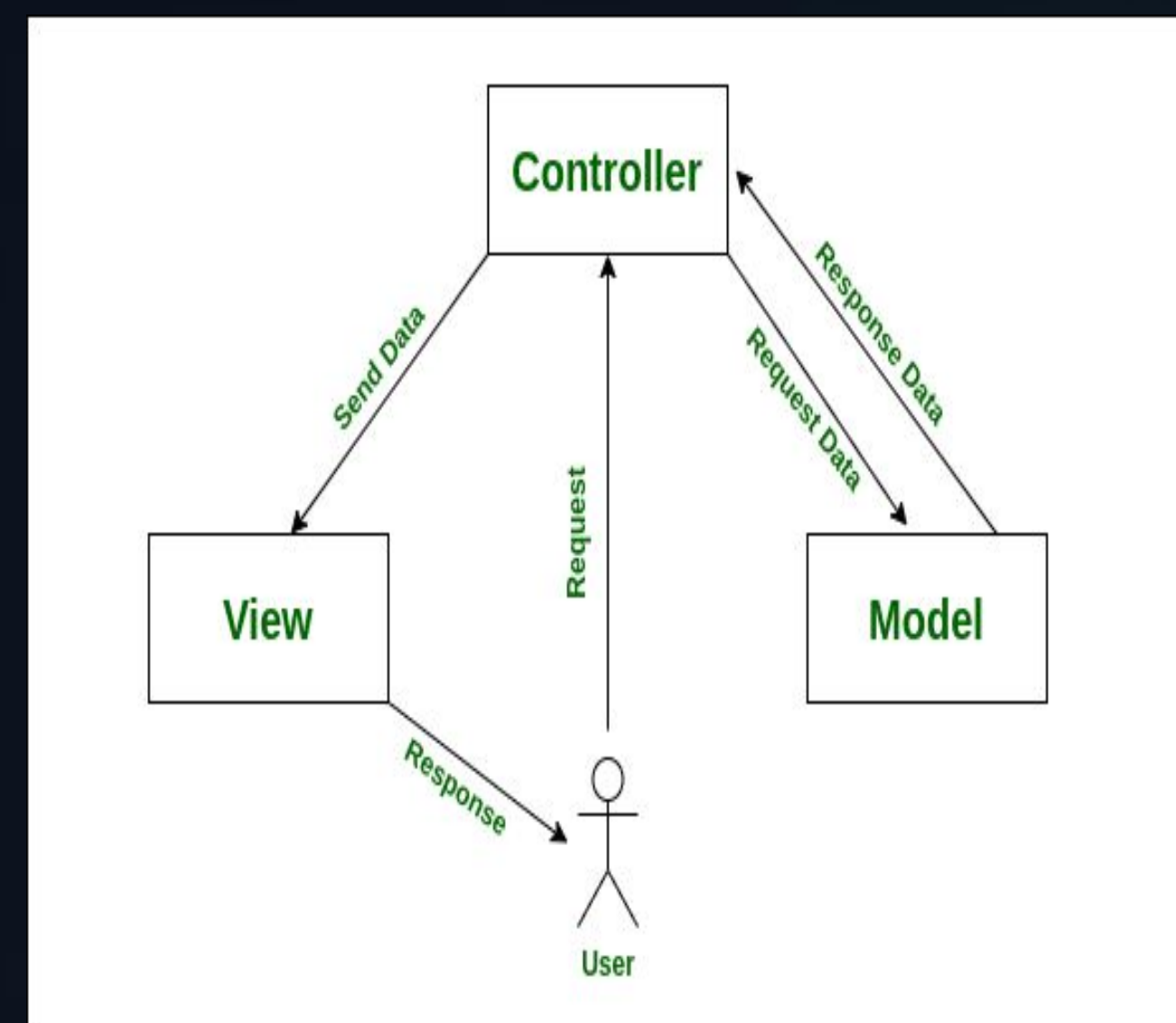
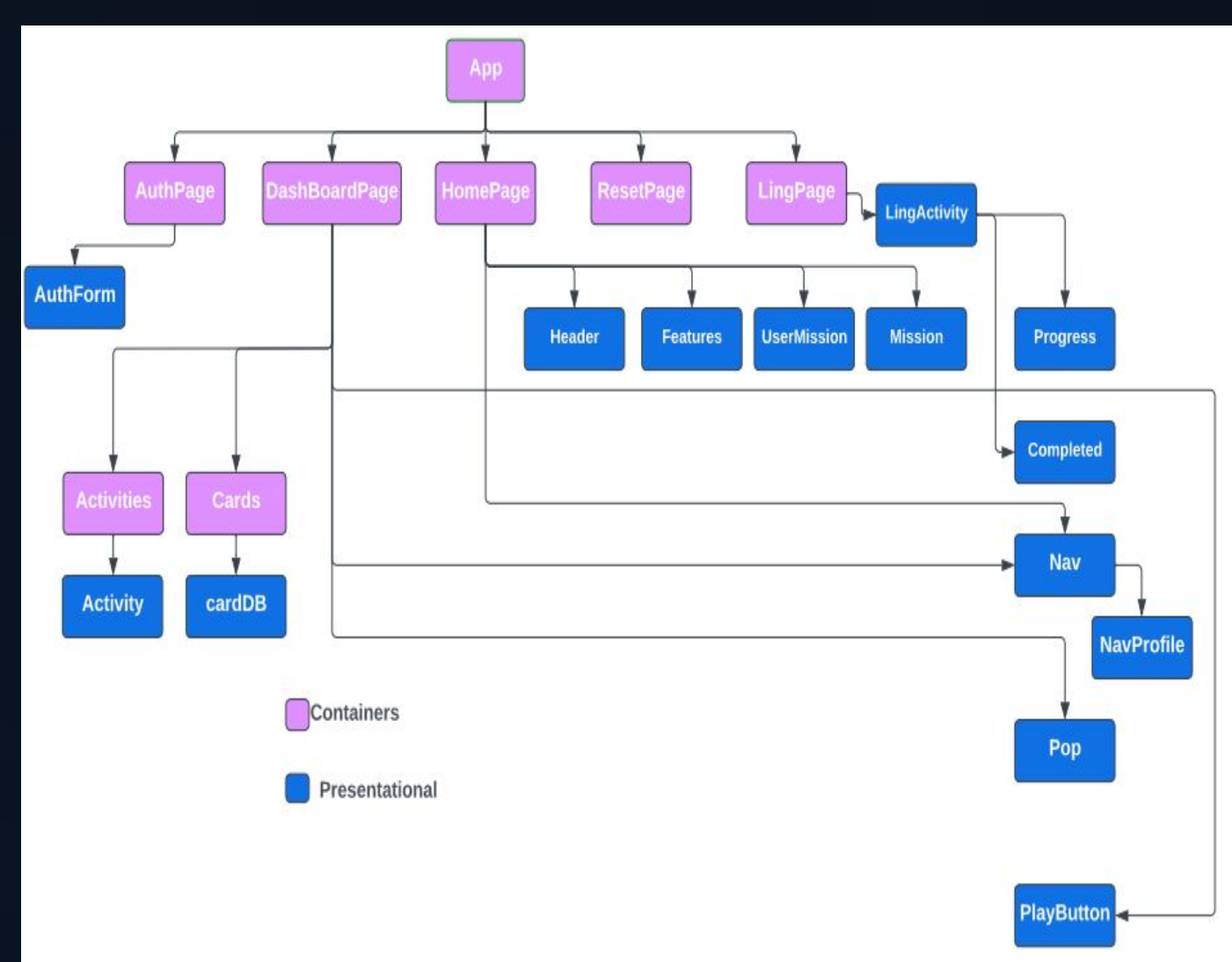
CURRENT SYSTEM

Auditory Training App! is a brand new application, with development having started on the current Spring 2022 semester. The general idea is to provide a one-stop service that can provide both cochlear auditory training through fun and interactive games, as well as providing inter-patient support via a community forum where users can connect, chat, and compete with each other.

REQUIREMENTS

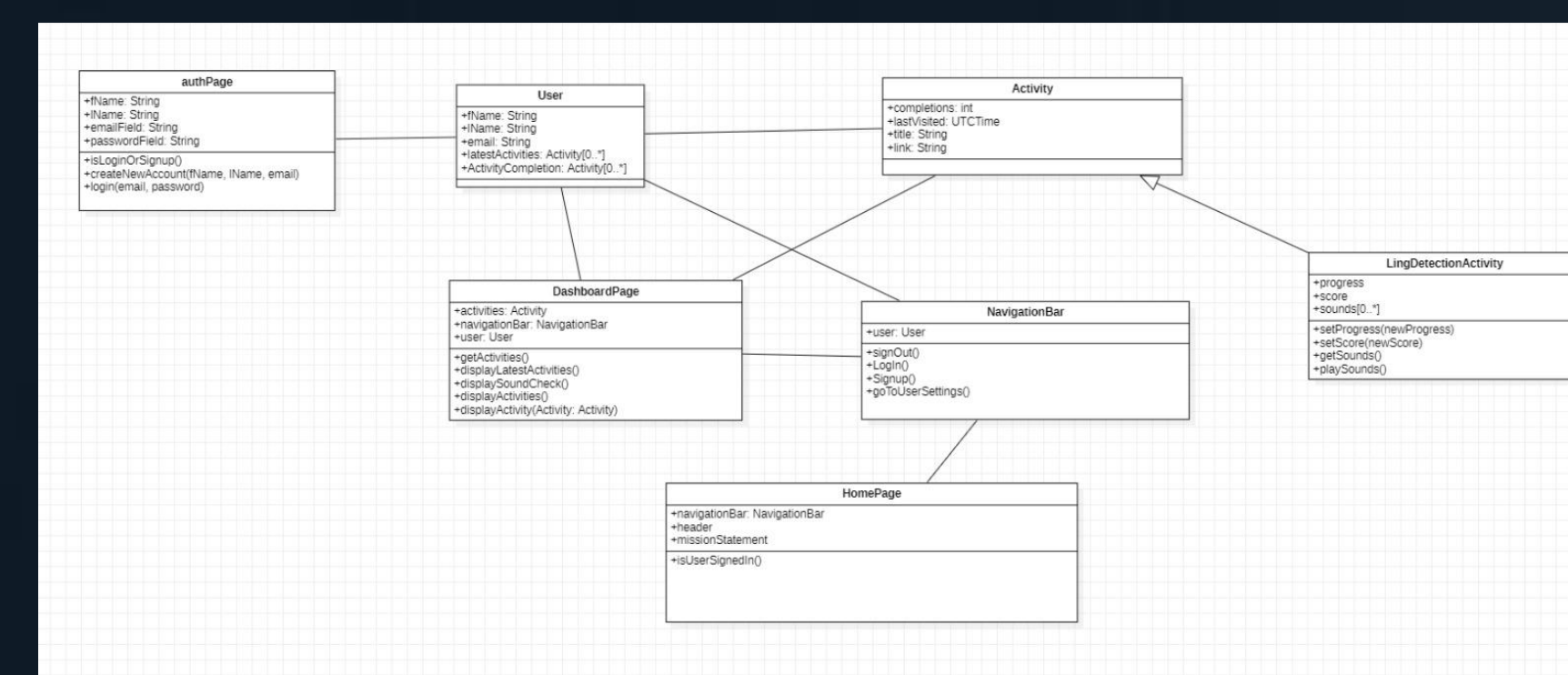
Auditory Training App! was designed to be a cross-platform application with iOS, Android, and web compatibility. The app's different user-facing features would include a community forum, and singleplayer/multiplayer games and activities. These games would increase in difficulty, giving the ability for players to track their auditory comprehension progress as they play longer.

SYSTEM DESIGN



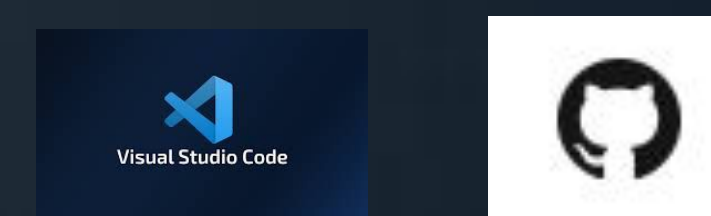
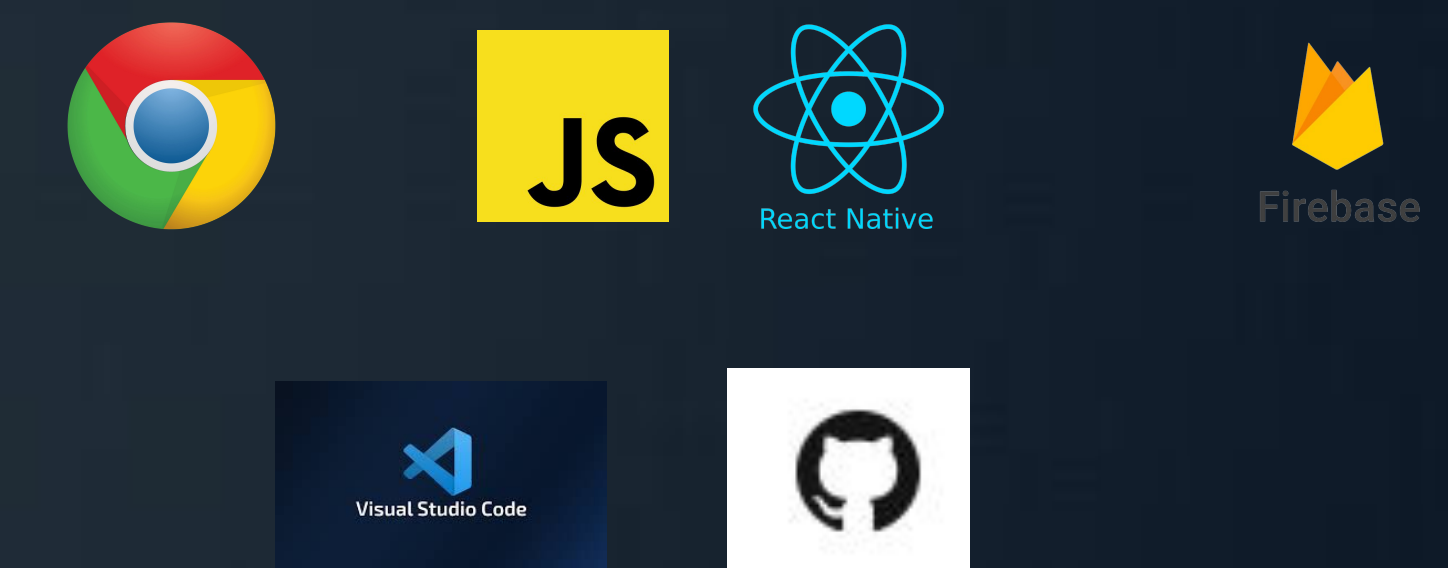
OBJECT DESIGN

audio	
documentID	string
key	string



users	
documentID	string
fName	string
lName	string
email	string
email	string

IMPLEMENTATION



VERIFICATION

Testing for the application was done largely on a personal basis. UI testing was performed in order to make sure the app displayed well on all desktop screen sizes/aspect ratios. Unit testing was also performed on different components to ensure erroneous data was handled properly. Chrome's developer tools, as well as its React's extension were used.

SUMMARY

As this was the first iteration of the Auditory Training App, much of the groundwork was the primary focus of the team. Most of this team's efforts went towards creating user interfaces, and design user experiences. User Authentication was also prioritized, this includes creating accounts, resetting passwords and signing into accounts. Some reusable components were also created for future activities that will be implemented. This includes a component that the database with new scores.

SCREENSHOTS

