

Auditory Training App

Student: Samuel Perez

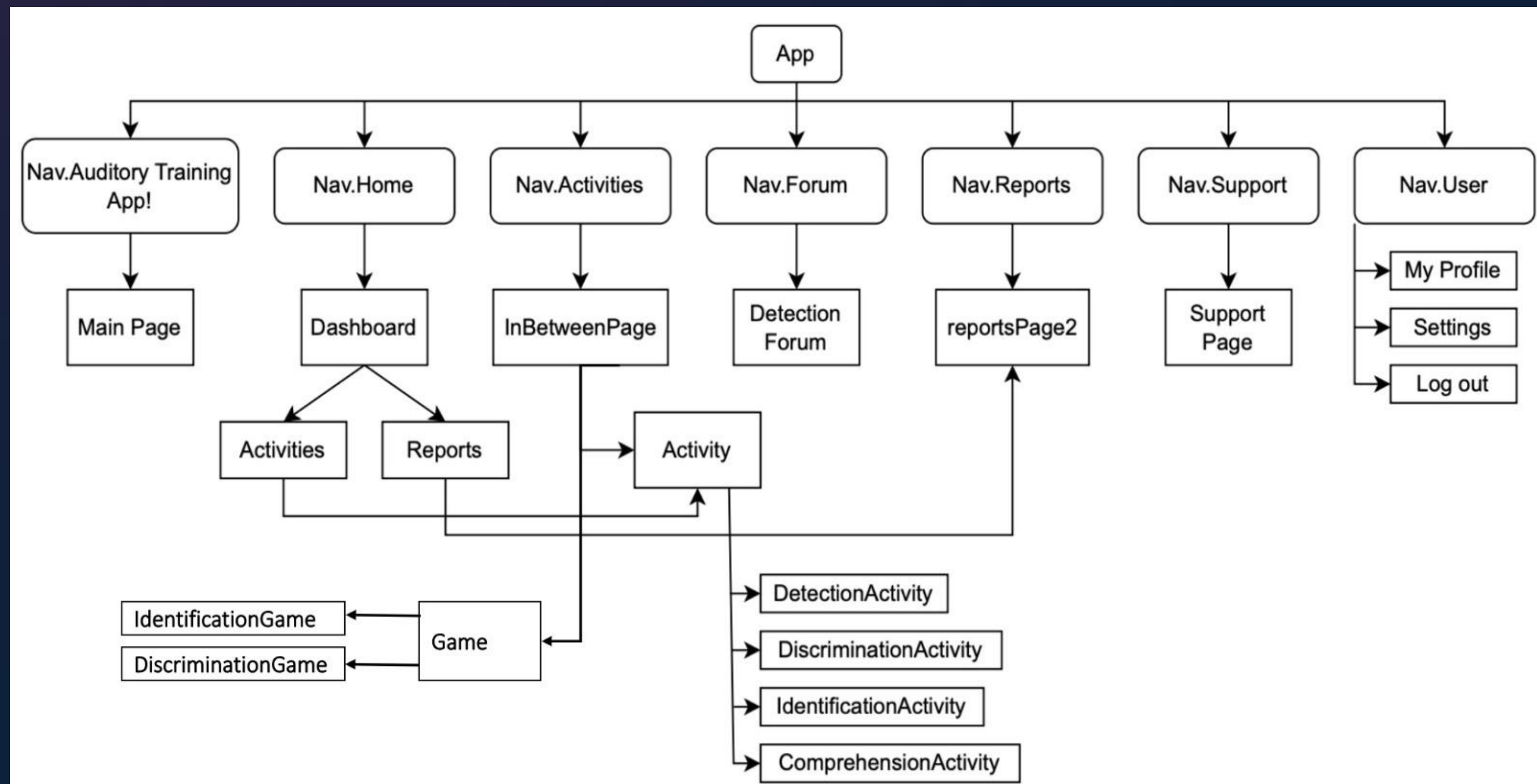
Mentor: Dr. Alliete Alfano, Product Owner

Instructor/Faculty: Dr. Masoud Sadjadi, Florida International University

PROBLEM

The Auditory Improvement App is a web-based platform designed specifically for adults who are dealing with hearing loss and are either using hearing aids or have cochlear implants. The main aim of this app is to enhance auditory abilities through a variety of interactive games and listening tasks that are both engaging and enjoyable. For individuals with hearing aids or cochlear implants, adapting to their new hearing capabilities can be challenging, especially during the early stages of cochlear implant use, which is often marked by speech recognition difficulties. To facilitate this transition, our app provides multiple methods designed to help individuals enhance their hearing abilities.

SYSTEM DESIGN



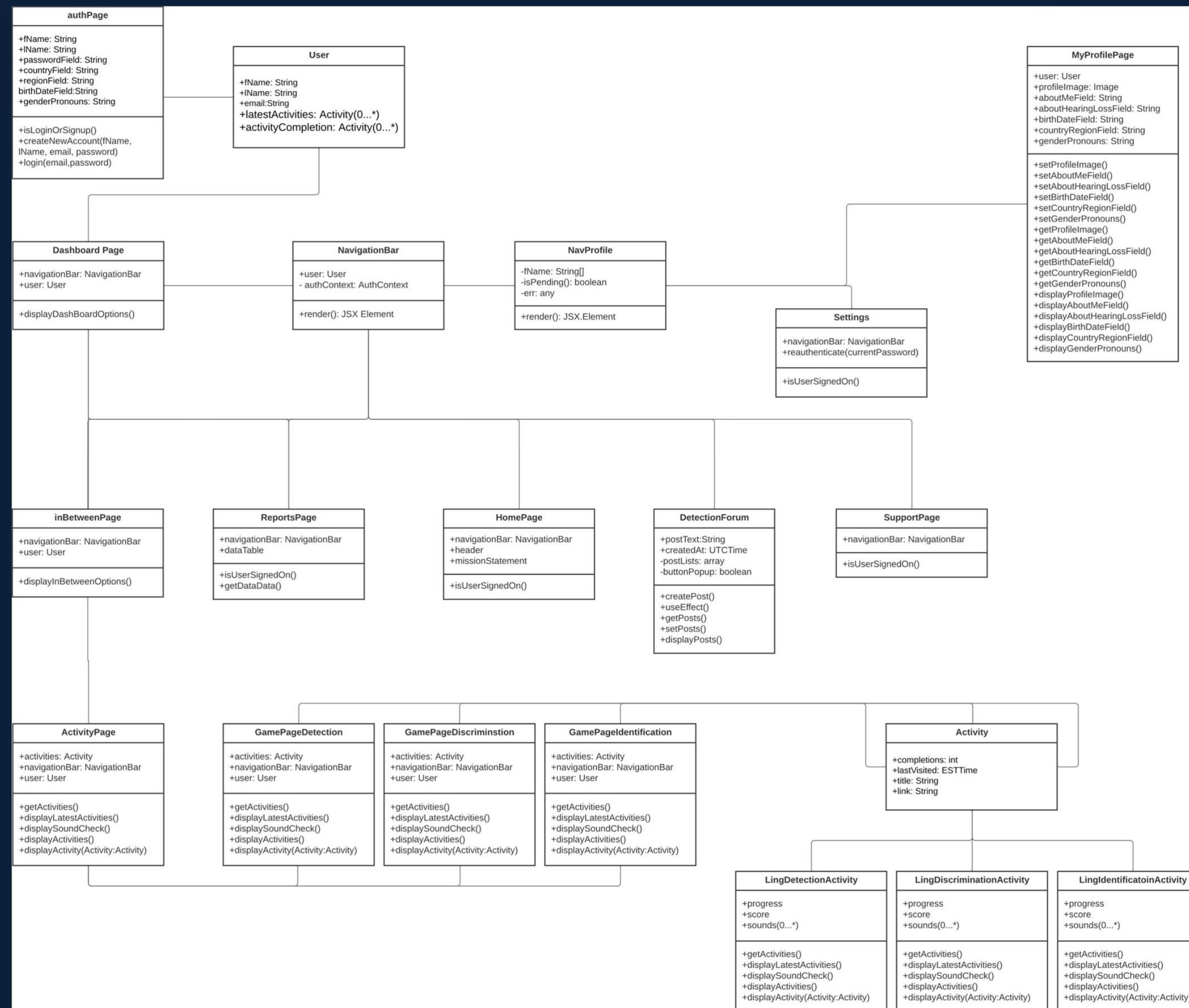
VERIFICATION

The team members conducted manual tests and assessments on all modifications to the application, coordinating these efforts through meetings with the Product Owner and through detailed code reviews. These changes were only sanctioned upon confirmation of their correct functionality. In our meetings, we engaged in open discussions about our ongoing progress and any obstacles faced. Following the conclusion of the daily scrum sessions, all approved alterations were integrated into the main GitHub repository, aiding future development endeavors.

CURRENT SYSTEM

My efforts were focused on the development of a voice selector feature and the enhancement of the "Ling Discrimination" and "Ling Detection" sections. This involved a comprehensive restructuring of the database to facilitate more efficient integration of collections and files. I also integrated new voices into the database, complete with a preview feature for user convenience. Moreover, I introduced advanced difficulty levels in the "Ling" activities to challenge users with more intricate sound distinctions. Lastly, I addressed various software bugs and reorganized certain parts of the code to improve overall efficiency and functionality.

OBJECT DESIGN



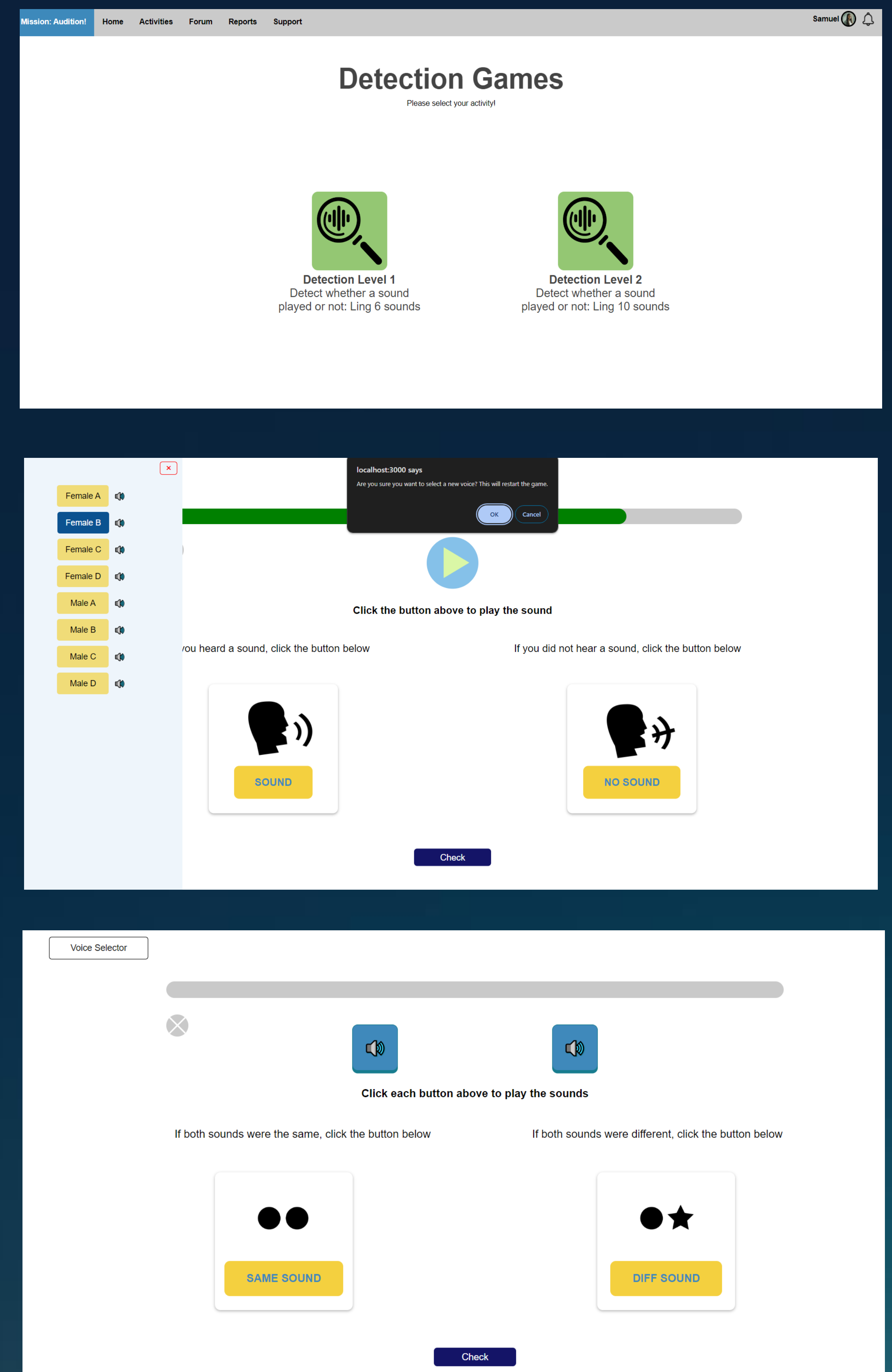
SUMMARY

Together as a team, we focused on two key goals: enhancing the front-end user experience and augmenting the content available. We also devoted attention to improving the data structure of the database. Despite our team's small size, consisting of only three members, we achieved a significant expansion of the app's content. Future teams should plan to incorporate graphics into the games' user interface and introduce features such as ambient noise to enhance the user experience.

IMPLEMENTATION



REFERENCES



ACKNOWLEDGEMENT

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