

Knights Foundation of Computing and
Information Sciences

Spring 2023 Senior Design Project

Auditory Training App

Students: Enrique Portela

Mentor: *Dr. Alliete Alfano*, Product Owner (if different from Instructor and where applicable)

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

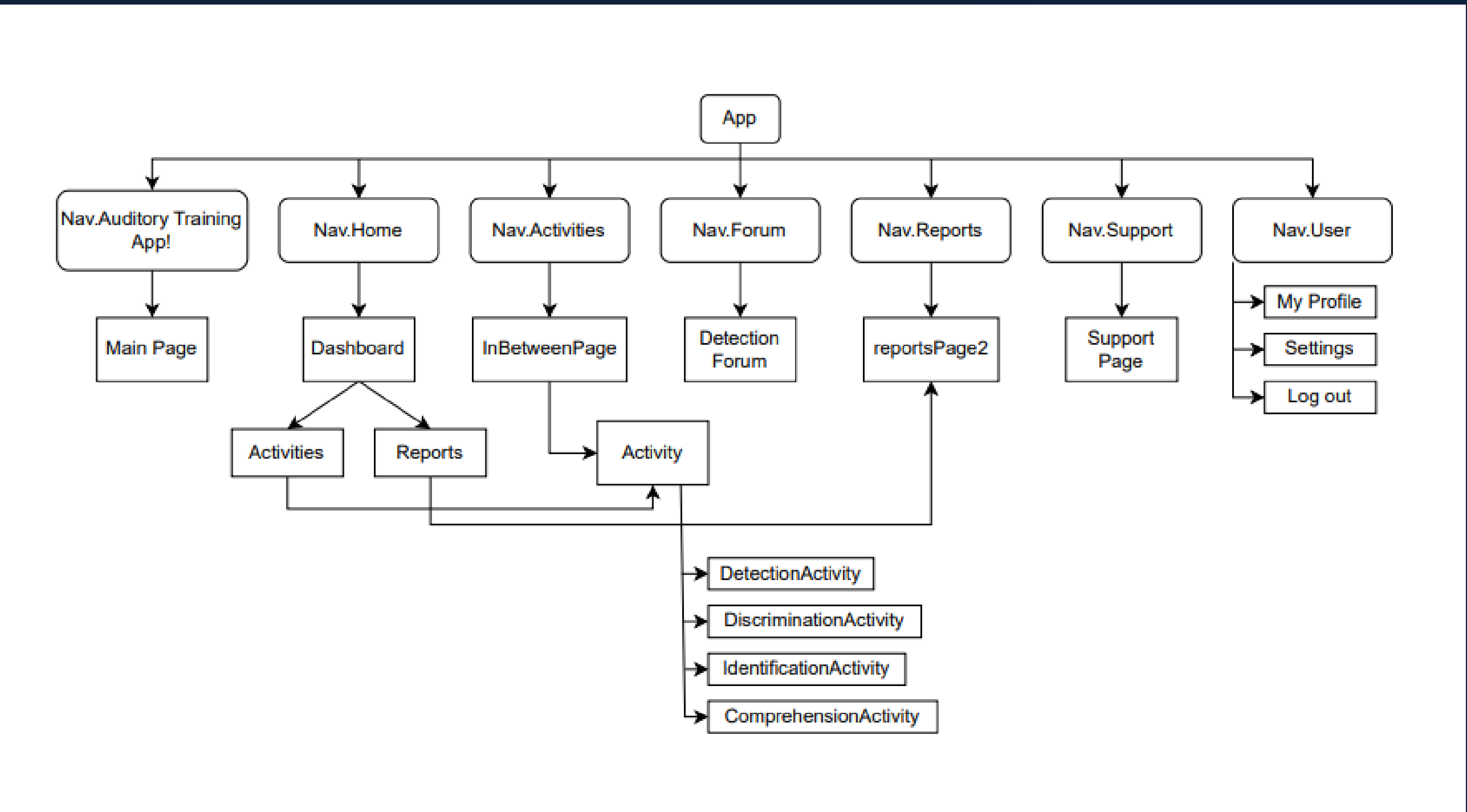
PROBLEM

People experiencing hearing loss face challenges in finding adequate resources for auditory training. Consequently, they need specialized training to adapt to their changed hearing abilities, especially during the initial use of cochlear implants when speech recognition might be difficult. The purpose of this web application is to offer a range of speech identification lessons, aiming to assist individuals in need of cochlear implant training.

SUMMARY

This semester's primary objective was to enhance and advance the app's capabilities. To achieve this, we focused on debugging and documenting features from previous semesters. The work undertaken effectively strengthened the foundation of the application. Going forward, we aim to further improve the website's responsiveness by introducing additional mobile-friendly features. This will expand user accessibility to the auditory programs, creating a more user-friendly experience.

SYSTEM DESIGN



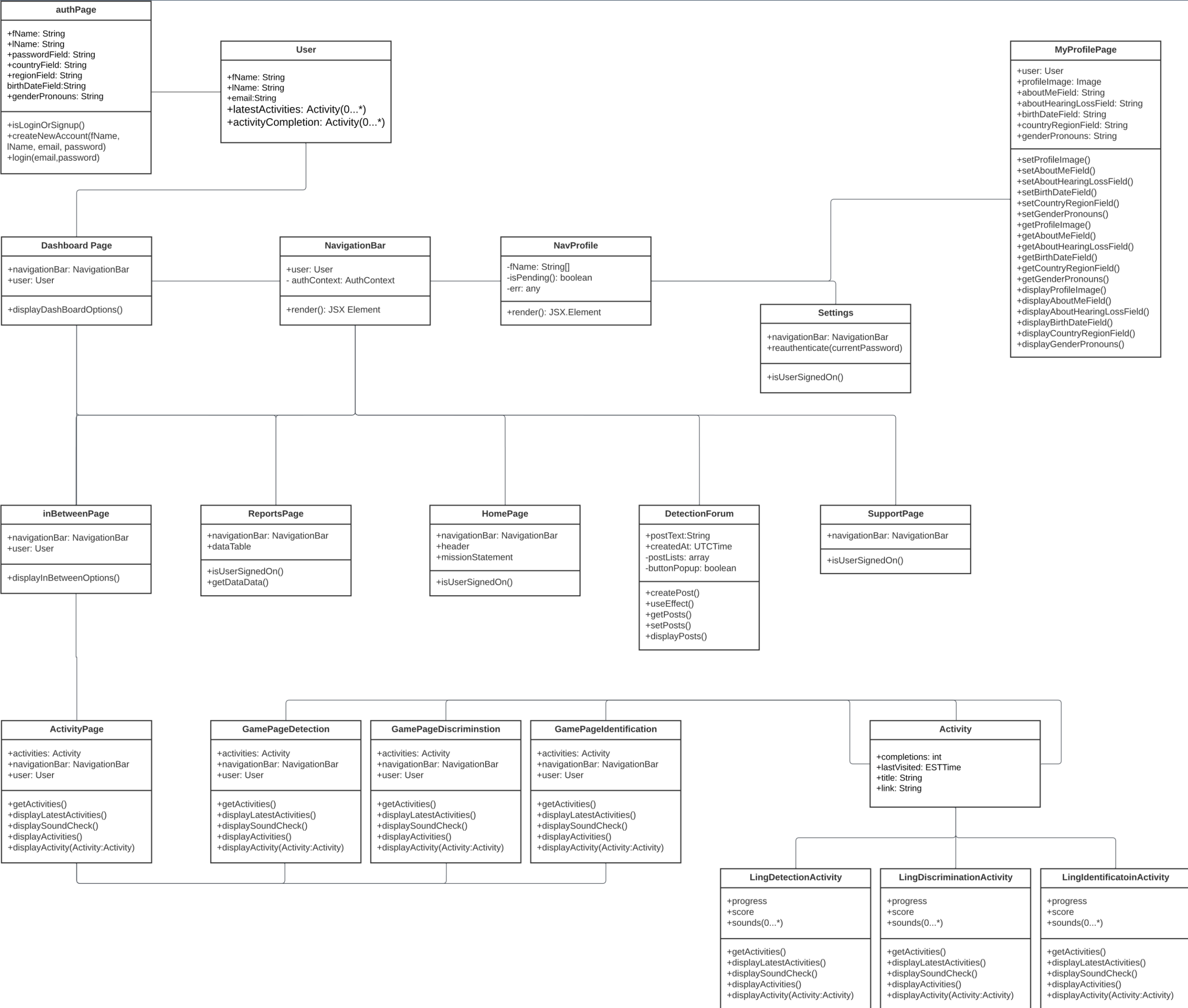
The main objective of the system's design was to ensure that users can effortlessly access auditory training modules on their mobile devices while enjoying a consistent and smooth user experience across all features and games.

CURRENT SYSTEM

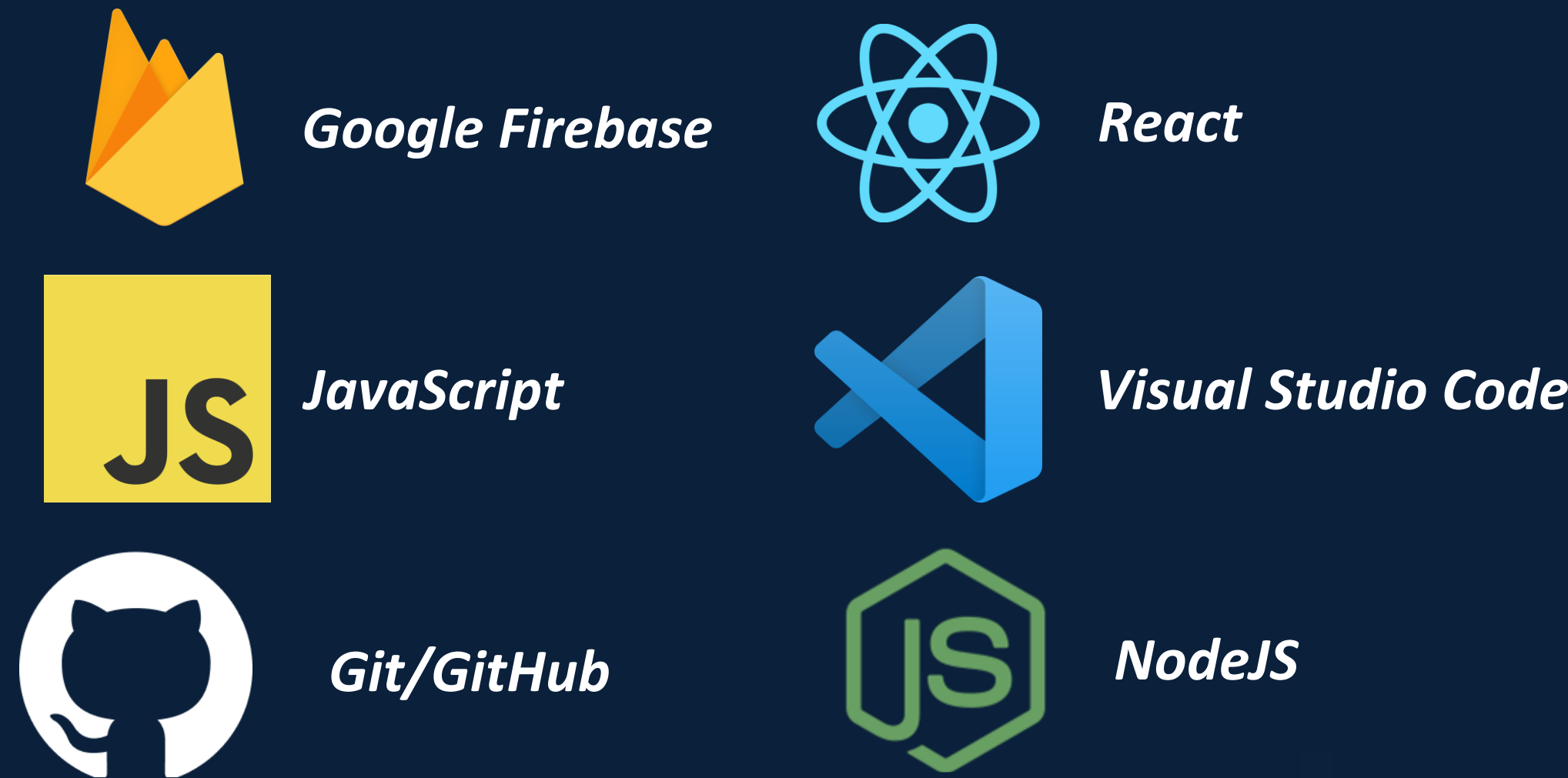
Continuing with the project, I concentrated on enhancing the functionalities of the report page. The data was efficiently organized, categorizing it based on Activity Type, Date, Time, and the addition of a Paging System. As a result, users can now easily navigate and access specific information they require. Additionally, I implemented an Export Button that allows users to conveniently download all the data in a CSV file format. This feature enables seamless data sharing and analysis for a more comprehensive understanding of the app's usage and activities.

VERIFICATION

During development, team members focused on specific feature improvements. Changes were demoed, manually tested, and reviewed in meetings. Approved modifications were merged into the "development" branch on GitHub for user access.



IMPLEMENTATION



REFERENCES

Auditory Training App!Dashboard

pine👤🔔Forums💬

Reports Page

Welcome to the Reports Page, where you can view your activity history.

Export🔗📘📱

Activity Type	Date	Time	Score
Detection	14/03/2023	17:02:38	60%
Detection	14/03/2023	17:02:52	50%
Detection	14/03/2023	17:02:59	50%
Detection	14/03/2023	17:03:00	50%
Detection	14/03/2023	17:03:05	70%
Detection	14/03/2023	17:03:10	60%
Detection	14/03/2023	17:03:15	60%
Uetection	14/03/2024	17:03:39	50%
Detection	17/04/2023	11:30:55	100%
Detection	17/04/2023	11:30:56	100%
Detection	17/04/2023	11:43:48	60%
Detection	21/04/2023	10:00:37	50%
Detection	21/04/2023	12:27:11	50%
Detection	21/04/2023	12:48:48	60%
Detection	21/04/2023	13:40:03	50%
Detection	21/04/2023	13:49:44	70%
Detection	21/04/2023	14:50:40	100%

123

ACKNOWLEDGEMENT

The material presented in this poster is based upon the work supported by XXXXX (name of the project sponsor: federal, state or local government, or corporate partners, where applicable). We/I thank XXXX for his/her/their assistance and mentorship that I/we received throughout the senior design project.