

Knight Foundation School of Computing and Information Sciences

Spring 2022 Senior Design Project

Auditory Training App Development

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PROBLEM

To combat hearing loss, the auditory training app provides games and interactive listening activities to improve the hearing ability of those who have received a hearing aid or cochlear implant.

A comparison can be made to Duolingo with emphasis on personalized learning, and effectively and efficiently improving hearing.

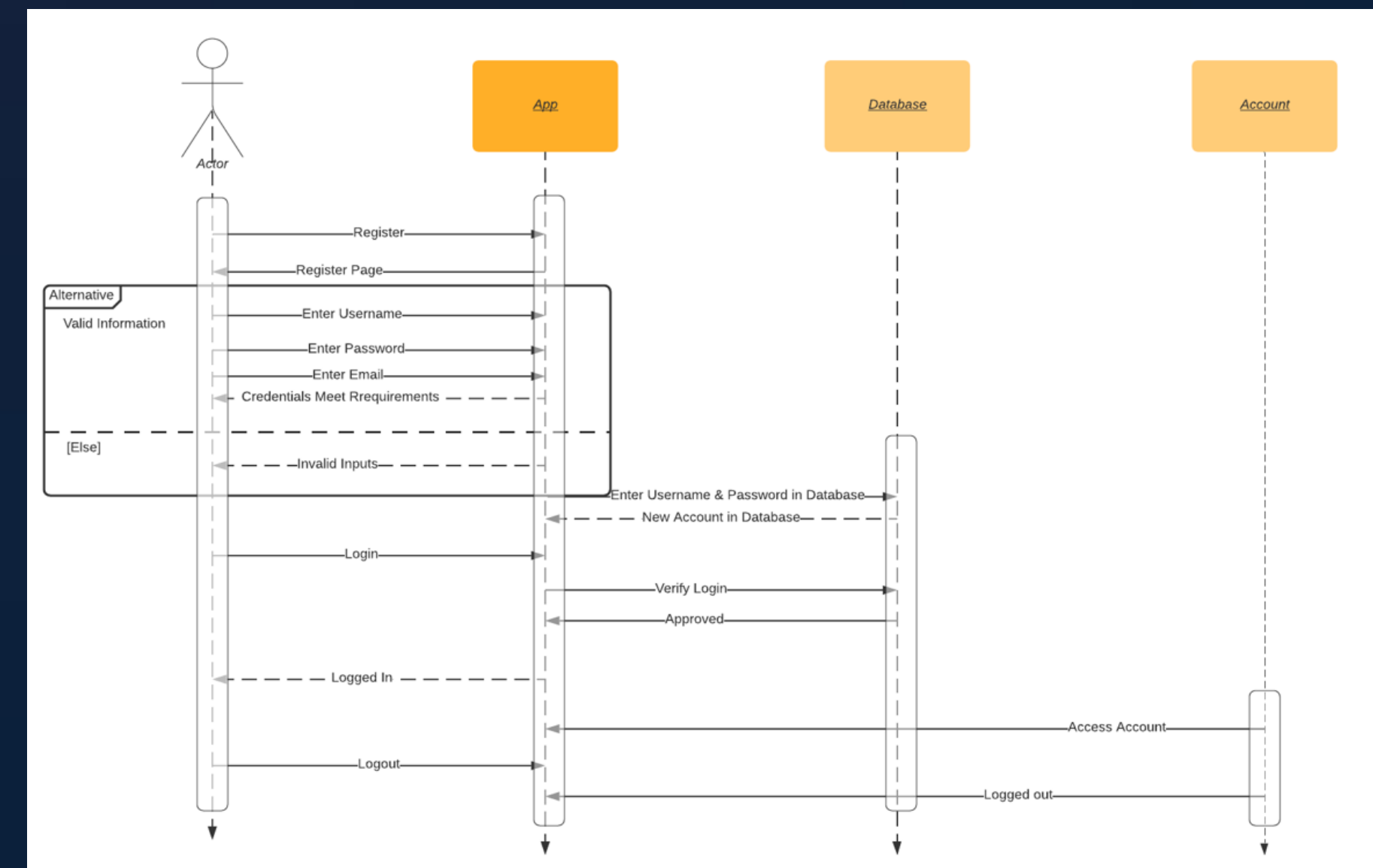
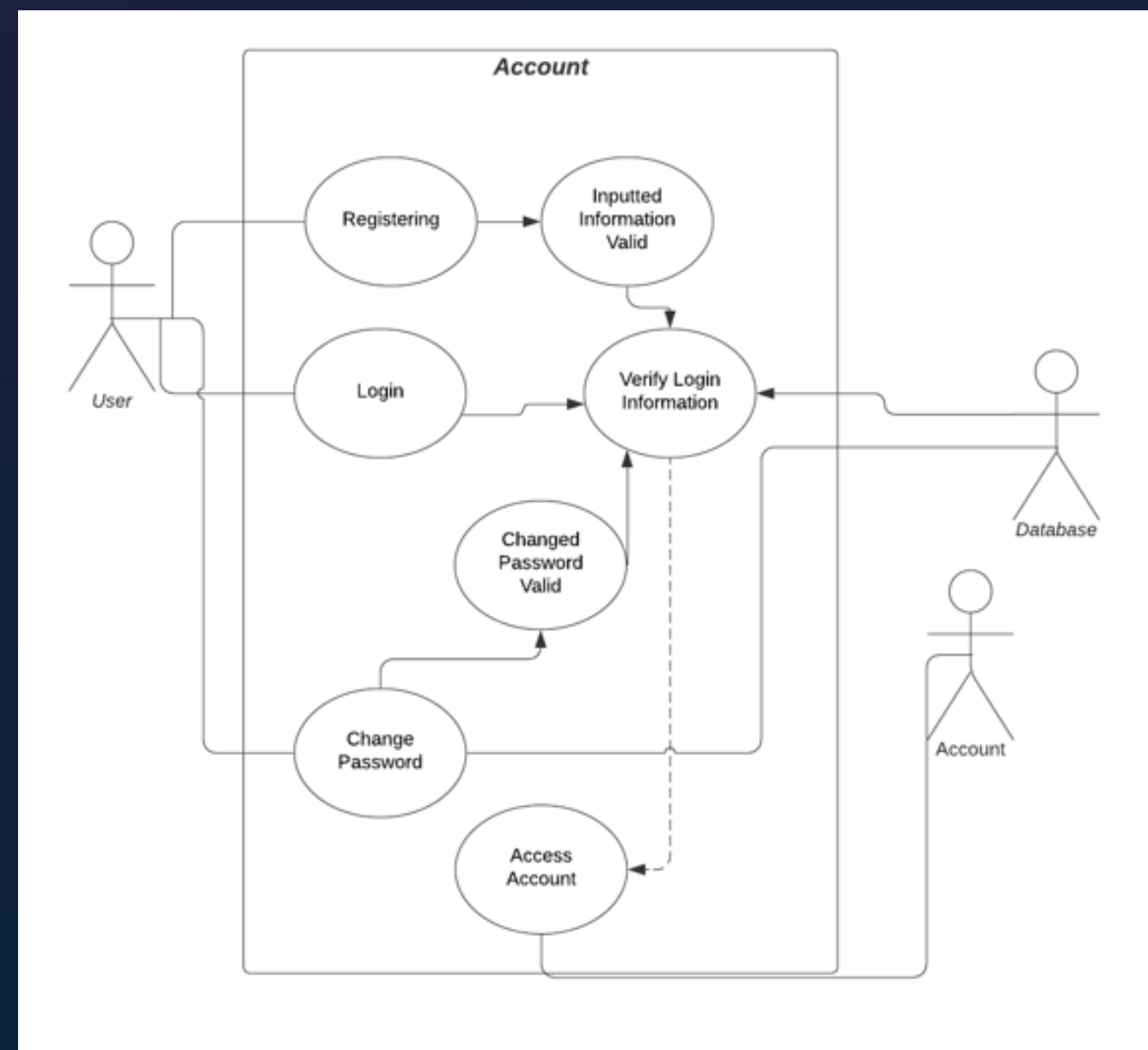
CURRENT SYSTEM

This is the first implementation of this project. The team is entirely starting from scratch, we set up the code base and selected the software we thought best could meet the demand of this application. Additionally, we stayed updated with the needs and adjustment that the product owner thought was best to lay the foundation for this app. Everything will be documented so the next team may continue the progress. Currently, the login system is fully created. The next focus point will be the individualized activity lessons.

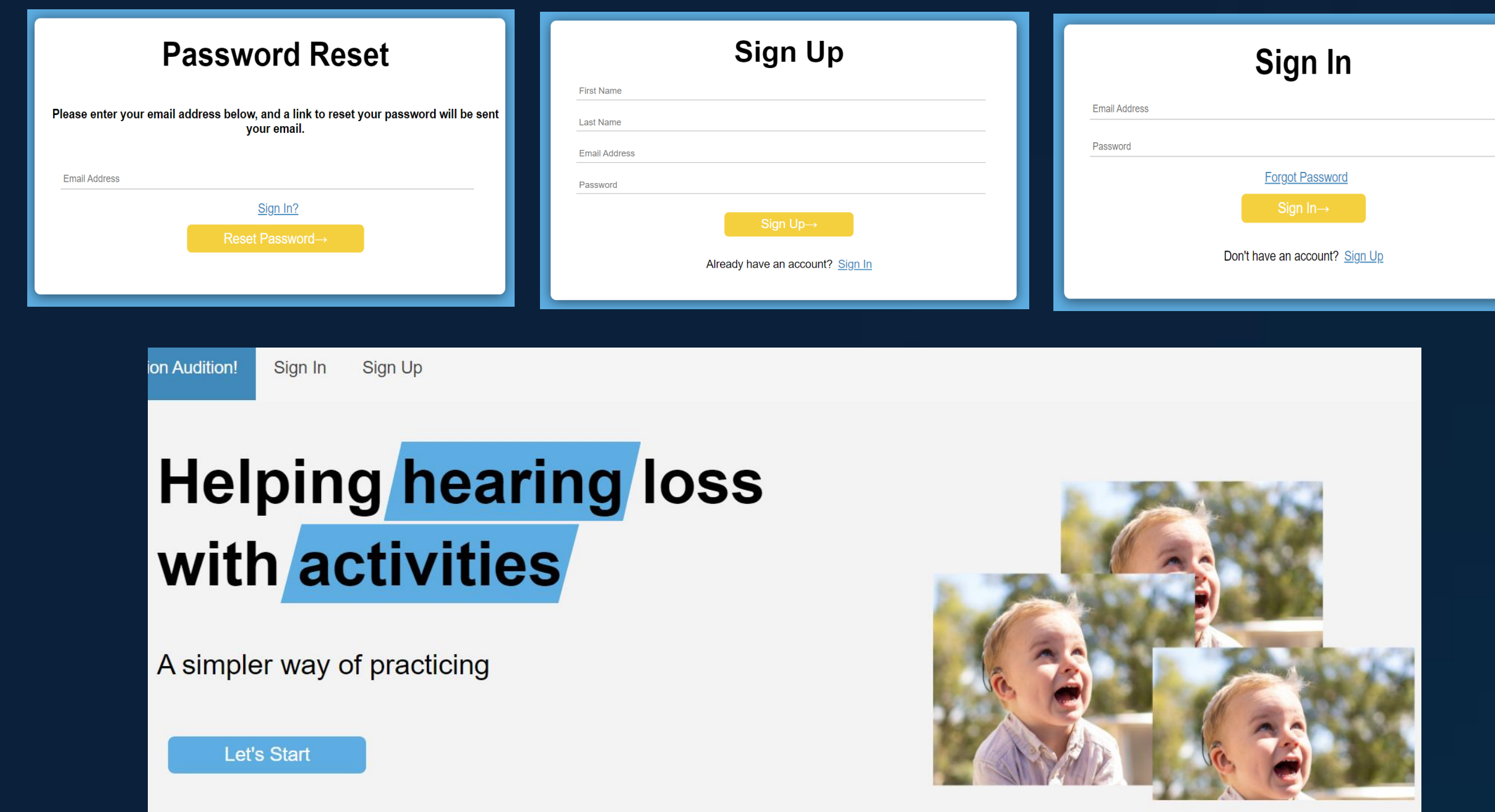
REQUIREMENTS

- Individualized activities and games for solo use
- Cross-platform available for IOS and Android users with one code base
- Ability to track progress and send results to audiologist
- Different types of voices, accents and background noises

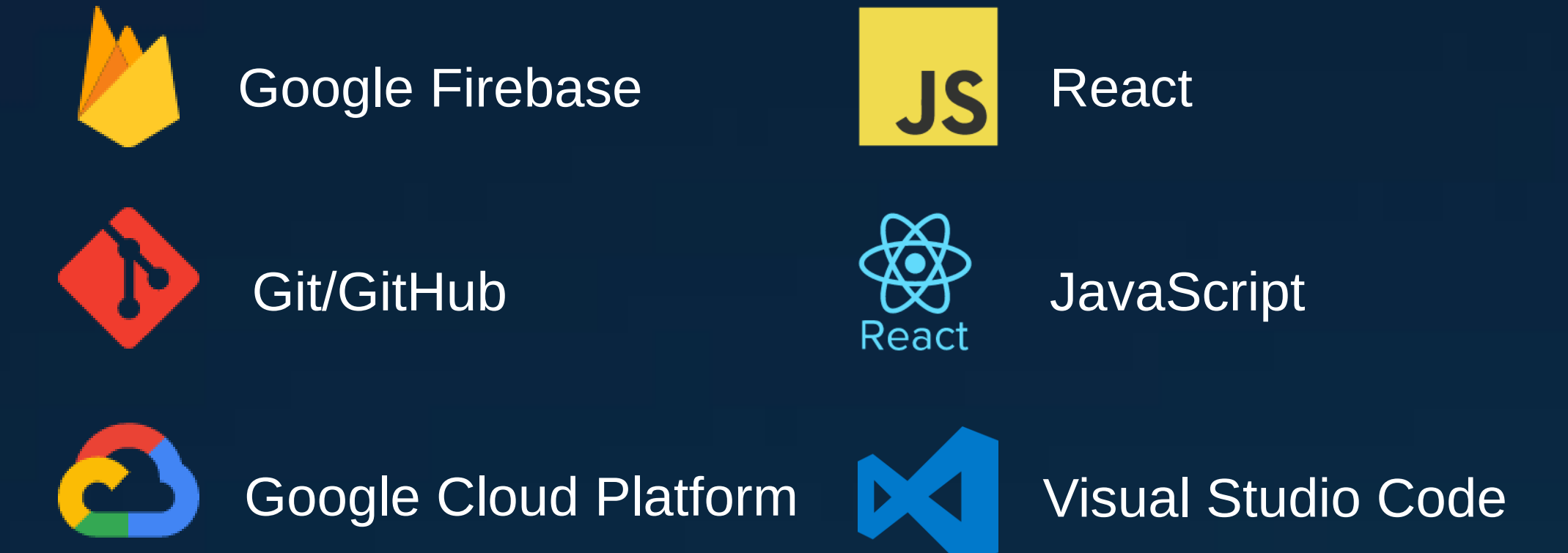
SYSTEM DESIGN



OBJECT DESIGN



IMPLEMENTATION



VERIFICATION

Testing for the application was mostly surrounding the login, logout, and forgot password system. Additionally, testing also covers the process of going through a specific lesson. For testing, we wanted to make sure after a certain time interval of inactivity a logout procedure starts, and the user has a time limit to click to stay active or the logout process is concluded.

SUMMARY

In conclusion, this is the first iteration of this project, the main goal was to lay the foundation of the application so future developers may append additional features. Target goals were to implement a fully functional registration system for new users and include the ability to log in/log out and as well as reset a password. Furthermore, allow users to choose their difficulty and to access and complete a lesson.

REFERENCES

Our main point of reference is the product owner, her information is below:

Alliete Rodriguez Alfano, PhD, aalfano@fiu.edu

ATTENTION: Subheadings shown above is a recommended structure for a research/scientific poster. Main elements of a poster are Introduction, Research and Conclusion. Researchers can customize the section headers based on their projects' needs. REMOVE THIS TEXT ONCE YOU START WORKING ON YOUR POSTER

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.