# PB-1 App that Recognizes User’s Eye Movements

**Date: 2/1/23**

## Overview

Every year, there are lots of people who are affected with brain or other traumatic injuries that lead to some form of speech impairment. One of these conditions is Aphasia, which can cause a loss of word-finding or word-substitution, agrammatism, and apraxia. The team will be developing an app for iOS and Android systems that will track the user’s eye movements and read out the word that is being focused on. The goal of this app is to assist in improving the speech production and day-to-day activities of people with Aphasia or a similar disorder.

## Project Team

|  |  |  |  |
| --- | --- | --- | --- |
| **Roles** | **Name** | **Major responsibilities** | **Contact (Email and/or Phone)** |
| Project owner | Patrick Bobbie | Client | 404-704-4349  [pbobbie@kennesaw.edu](mailto:pbobbie@kennesaw.edu) |
| Team leader | Michael Clayton | Developing and testing the app | 404-809-7792  [mclayton7586@gmail.com](mailto:mclayton7586@gmail.com) |
| Team members | Navonte Riggin | Writing the documentation for the app | 404-543-7921  [vonte.riggin@gmail.com](mailto:vonte.riggin@gmail.com) |
| Max Dixon | Developing and testing the app | 770-722-5320  [mpdixongm@gmail.com](mailto:mpdixongm@gmail.com) |
| Advisor / Instructor | Sharon Perry | Facilitate project progress; advise on project planning and management. | [sperry46@kennesaw.edu](mailto:sperry46@kennesaw.edu) Use D2l to email |

**Head Shots:**

**Michael Clayton: Navonte Riggin: Max Dixon:**

**A picture containing person, person, indoor, posing

Description automatically generated**A person wearing glasses

Description automatically generated with low confidence**A person smiling for the camera

Description automatically generated with medium confidence**

## Project website

[www.placeholderURL.com](http://www.placeholderURL.com) (We will update this at a later date)

## Final Deliverables - Specific to Your Project

1. Mobile App capable of recognizing a user’s eye movements over some text and reading the words that are focused on into text.
2. Requirements documentation, test reports, a user manual, other design documents.
3. A website to display the finished application.

## Milestone Events (Prototypes, Draft Reports, Code Reviews, etc)

If a date is bold, it means that something is due that day.

**Phase 1: (Dates subject to change)**

#1 - By February 8th

* Have preliminary research done for what language, tools, platform, resources, etc. would be best for completing the app.

#2 - By February 19th

* Have basic mobile app functionality done (General look of the app, text input function, etc.)
* Have the requirements documentation done.

#3 - By February 26th

* Basic Text-to-Speech function implemented (User inputs text to the app, and the app will read it back to you)

#4 - By March 12th

* The eye tracking functionality will be implemented (The app will have the ability to recognize where the user’s eyes are looking on the screen)
* Have a prototype of the app ready.

**#5 - By March 17th**

* **Prototype Presentation in class.**
* **Start working on the project website.**

#6 - By March 26th

* Have the app integrate the eye tracking functionality with the text-to-speech, allowing the app to read a word to the user when they focus their eyes on it.

**#7 – By April 7th**

* **Submit C-day application.**
* **Have project website up and running.**

**#8 – By April 14th**

* **Rough Draft of the final report due.**
* **Have the user manual done.**

#8 – By April 23rd

* Have all documentation complete.

**#9 – By April 27th**

* **Final Project Package is due.**

**Phase 2: (These will be done if we have time)**

* Add option to integrate text from other sources into the app i.e., a book, article, etc.
* Implement music-intonation to the synthesized speech.
* Monetize the app

## Meeting Schedule Date/Time

We will be meeting with Professor Bobbie every week on Wednesday’s at 1:00 pm on Microsoft Teams initially, but as the project progresses, we will meet less often, maybe once every two weeks or so.

## Collaboration and Communication Plan

For communicating with Professor Bobbie, we will be using email/outlook and Microsoft Teams. We will also communicate by cell phone when needed. Michael will be responsible for recording/taking notes of the meetings and distributing them to the rest of the group.

For communicating amongst ourselves, we will be using Discord primarily, but we have each other’s emails and phone numbers in case they are needed. We will be using GitHub to share code and files with each other. With all forms of communication, we will respond quickly and as soon as possible, generally within a few hours if not sooner.

## Project Schedule and Task Planning

See the Project Work Plan (Gantt chart) file attached.



## Version Control Plan

To maintain version control, we will have a GitHub account specifically dedicated to the senior project. We will use this account to upload all the code and documentation.

The account can be found on GitHub as PB-Group1.

Note: We don’t have professor Bobbie’s signature, but you said that’s ok since we coordinated this submission to you.

## Signed by:

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Project Owner Date