

Project Diary

Logs

September 2023

25/09/2023

- Scheduled a 30 minute supervisory meetings with supervisor on a weekly basis, **every Tuesday at 13:30pm.**
- Need to collate all background research done during the summer in order to categorise the findings according to a specific problem domain.
- Then select a particular topic in interest regarding eye health.
- Need to select a project methodology that is appropriate for the project.
- Create a project plan document yielding background researches.

26/09/2023

- Need to sort references in project notes document
- Separate background research into key areas and ideas.
 - Medication reminder.
 - Logging measurements.
 - Eye games and exercises.
 - Educational apps for managing eye health.
- Organise into sections, the existing mobile applications that I have researched.

27/09/2023

- Organise the literature review and background research of the project.
- Start draft of project definition report and attempt on poster.

28/09/2023

- Making sure harvard referencing is used in referencing section in report.
- Delve into background research for literature review.
 - Review research paper <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6561043/>
 - Look through the advantages of a smartphone being used for opening opportunities for online health care.
 - During Covid-19 lockdown, it was an important time for online health services.
 - Substantial numbers of patients are still missing their regular eye check since the Covid-19 lockdown, and opticians are currently requesting patients to book

for an eye-test appointments. Resulting patients have uncorrected eye conditions/problems that have not yet been diagnosed during the period.

29/09/2023

- Identify the benefits and setbacks from the existing solutions.
 - This will then be used in order to discover improvements, when proposing a solution.
 - Review app reviews from application vendors such as App Store, and Google Player Store
 - Add to references
 - https://play.google.com/store/apps/details?id=eu.smartpatient.mytherapy&hl=en_GB&gl=US

October 2023

1/10/2023

- Review literature review on eye health, and removed parts of the literature study that were not relevant to the background research.
- Need to review the following research paper:
 - <https://link.springer.com/article/10.1007/s40135-023-00308-9>
 - For discussing about the significance of health apps during CoVID 19, and how it has revolutionised how we receive health services from the health sector.
 - How ICT has benefited the health sector in terms of delivering the health services and appropriate treatment to patients.
- Think of Software Development Models
 - Waterfall Model
 - Iterative Model (Cyclical model)
 - May not adhere to time constraints.

02/10/2023 – 16/10/2023

- Focused on collating more background research on the topic of eye health.
- Consulted guides on literature review, and how to improving search query for research papers/journals.
- Updated schedule in bar chart.

17/10/2023 – 27/10/2023

- Focused on collating background on technologies and development tools used for mobile app development.

November 2023

27/10/2023 – 10/11/2023

- Focused on ethics approval
- Using interviews as a way collecting responses based on a given use-case of an eye health application being used.
- Focus on collating historic dates and papers from topic related to eye health.

13/11/2023 – 04/12/2023

- Performed knowledge elicitation activities of the conducting of interviews through in person and online.
- Analysed responses obtained from the interviews.
- Explored existing eye health applications.
- Identified Non-functional and Functional requirements from Background research and Knowledge Elicitation activities and has prioritised them using MoSCoW.
- Identified potential risks that may occur and has documented them in Risk Management report.
- Identified key constraints regarding time management, hardware availability.

December 2023

04/12/2023 - 15/12/2023

- Need to perform justification of selected hardware and development tools, whilst performing comparisons.
- Currently in the design process of creating wireframe designs, use-case diagrams, and database schema.

15/12/2023 – 05/1/2024

- Prepared git repository for the implementation of the eye health application
- Setted up IDE for Android mobile app development.
- Created a basic template of the mobile application.
- Reviewing API documentation on navigation, creating ViewModels to communicate between UI Screens etc.
- Attempted a start on the navigation between different screens, navigation components, and created first interactive vision tool game.
- Need to focus on implementing database scheme, need to choose database package, decide if database is going to be a local database or one that is to be hosted.

January 2024

05/1/2024 – 15/2/2024

- Database Schema has now been fully implemented.
- Created minimal viable product of the eye health management application.
- Configured on GitHub, Continuous Integration tools that are designed for Android applications to identify if a particular modification of a module, or a new module causes potential software breakages.
- Created Tests on the backend of the mobile application using Android Unit Tests.
- Created Integration Tests on the Mobile applications, and integrated unit tests to identify potential software breakages or defects in a particular software module.
- Revising Chapters in the Final Report.