MEDISAFE - STAY AWAY AND DEFEAT DISEASE

Project Id: 2022 - 143

Project Logbook

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B.Sc. (Hons) Degree in Information Technology

Specializing in Information Technology

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Sri Lanka Institute of Information Technology

Sri Lanka

November 2022

Declaration

I declare that this is my own work and this proposal does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any other university or Institute of higher learning and to the best of our knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Name	Student Id	Signature
Perera B.A.A.W.S	IT19015422	

The supervisor/s should certify the proposal report with the following declaration.

The above candidates are carrying out research for the undergraduate Dissertation under my supervision.

....

Signature of the Supervisor   Date

Table of the content

List of Figures

One-year workload completion

Meeting with Supervisor

Summary	Arrange a meeting to discuss the selected topic and individual components.
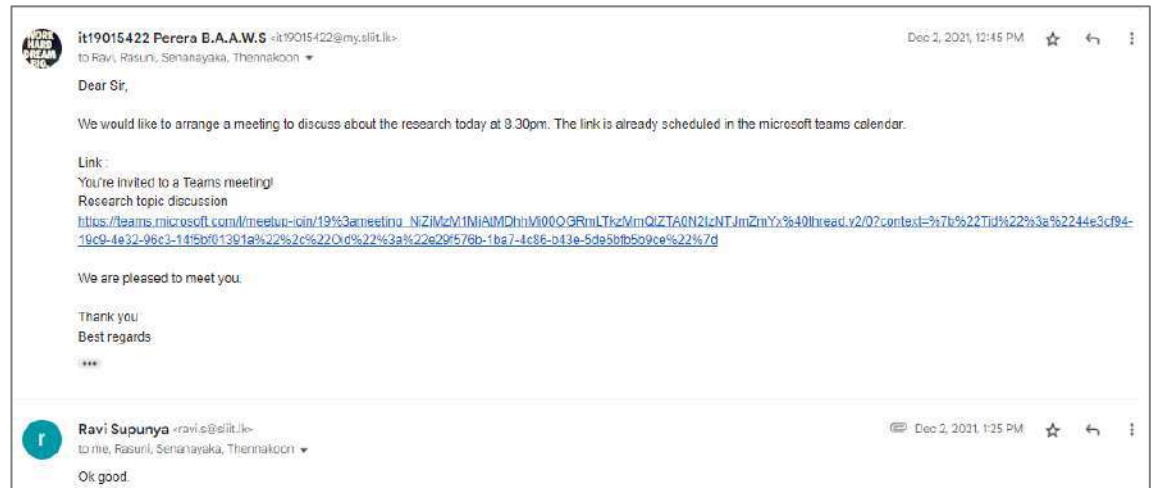
1: First arranged meeting with the supervisor

Workload completed for the day

Completed workload	For the selected individual component, relevant research publications were referred to, and find existing findings that can be developed in the future.
	Note down the relevant information for future implementations.

(2021/12/03 – 2021/12/27)

Workload completed for the month

Completed workload	Read the research papers that are relevant to the individual component (IEEE, Google scholar).
	Identify the research problem.

|	Compare the currently available implementations with new implementations (Identify the novelty).
	Make some modifications according to the supervisor's feedback in the topic assessment form.

__Workload completed for the day__

Summary	Submit the topic assessment form to the relevant cloud space.

__Workload completed for the above period__

	Getting topic assessment notification (It's rejected because of some student groups doing research regarding that field) And finding a new topic to conduct the research.
Completed workload	Refer to the research papers regarding the newly selected topic.
	Identify the problem/ solution in new ways (novelty).
	Meeting with an external supervisor and supervisor to get more ideas and details to conduct the research in advance.
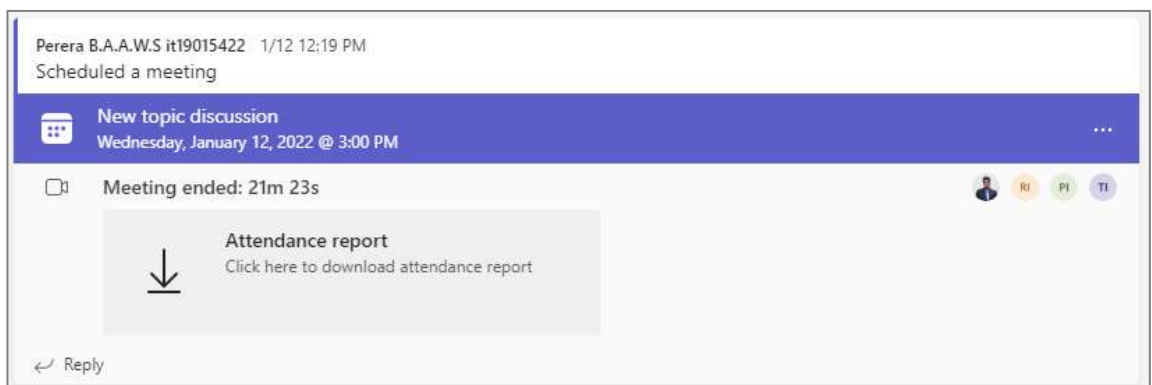
2: Selected topic discussion meeting

Workload completed for the day

Summary	Submit the topic assessment form with a new research idea.

Workload completed for the above period

Completed workload	Created Cover sheet /Charter for submission.
	Started creating individual project proposal and submit a draft document. (Abstract, Research problem, research gap, and literature review)
	Started creating proposal presentation and refer necessary references to create the presentation.
	Create a project proposal presentation and practice it well and conducted a rehearsal with the Supervisor.
	Make some modifications according to the supervisor's comments in the proposal presentation.
	Sent the finalized presentation to the supervisor and get feedback for it.

Perera B.A.A.W.S it19015422   1/25 10:19 PM
Scheduled a meeting

Accepted topic assesment discussion
Wednesday, January 26, 2022 @ 9:00 AM

Meeting ended: 10m 15s

Attendance report
Click here to download attendance report

Reply

3: Accepted topic discussion meeting

4: Proposal presentation reheasel meeting

Workload completed for the day

Summary	Proposal presentation

Workload completed for the above period

Completed workload	Continue the proposal report modifications and finished it.
	Send the finalized proposal report to the supervisor and got feedback from him and submitted it to the relevant cloud space.

5: Progress check by the supervisor

Workload completed for the above period

Completed workload	Follow in advance the selected technologies that are used to implement the final project. (Python and React native)
	Follow some online courses (Python) and follow different youtube tutorials that are related to our individual component implementations.
	Arrange meetings with group members and continue discussions.

Workload completed for the week

Completed workload	Collect datasets from different resources. (data.world, kaggle)
	Ready to discuss the current progress with the supervisor.

Workload completed for the day

Completed workload	Ready to discuss the current progress with the supervisor.
	Check the progress of the individual member component and discuss what things should be changed.
	Ready for the Co-supervisor research project meeting. (By creating presentation slides)

Perera B.A.A.W.S it19015422 3/5 8:05 PM
Scheduled a meeting

Research progress meeting
Sunday, March 6, 2022 @ 10:00 AM

Meeting ended: 7m 17s

Attendance report
Click here to download attendance report

6: Research progress checking meeting

7: Progress checking meeting with Co-supervisor

Recorded meeting link: https://mysliit-my.sharepoint.com/personal/samantha_r_sliit_lk/_layouts/15/stream.aspx?id=%2Fpersonal%2Fsamantha%5Fr%5Fsliit%5Flk%2FDocuments%2FRecordings%2FWeekly%20Progress%20Meeting%20B%2ESc%2E%20projects%202022%20%28%20Every%20other%20weeks%29%2D20220306%5F220442%2DMeeting%20Recording%2Emp4&ga=1

(2022/03/07 – 2022/03/14)

Workload completed for the week

Completed workload	Start to collect datasets from different resources. (data.world, kaggle)
	Follow python/ Flask tutorials and learn about the beginning level.

(2022/03/15 – 2022/03/21)

Workload completed for the week

Completed workload	Start to create individual research paper (Overleaf file) under the Co- supervisor's supervision. (Abstract and Introduction part)
	Developed an understanding of how to set up the project's environment.

	Continue dataset collection.
	Arrange meetings with team members and discuss dataset training implementations.
	Create presentation slides for the Co- supervisor's weekly progress meeting.
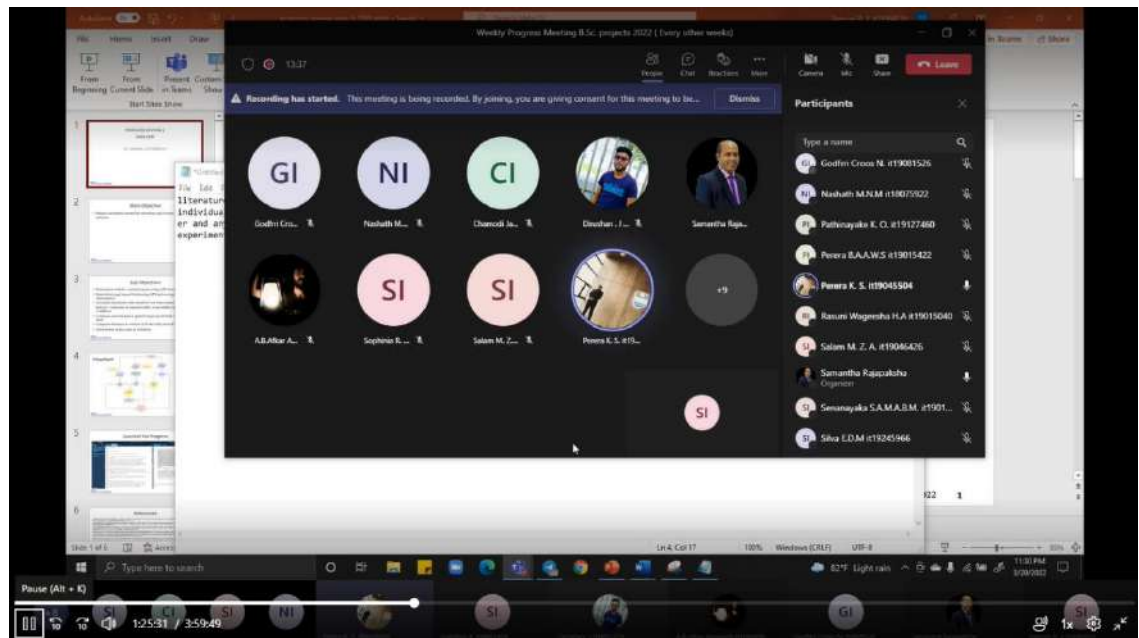
9: Progress checking meeting by Co-supervisor
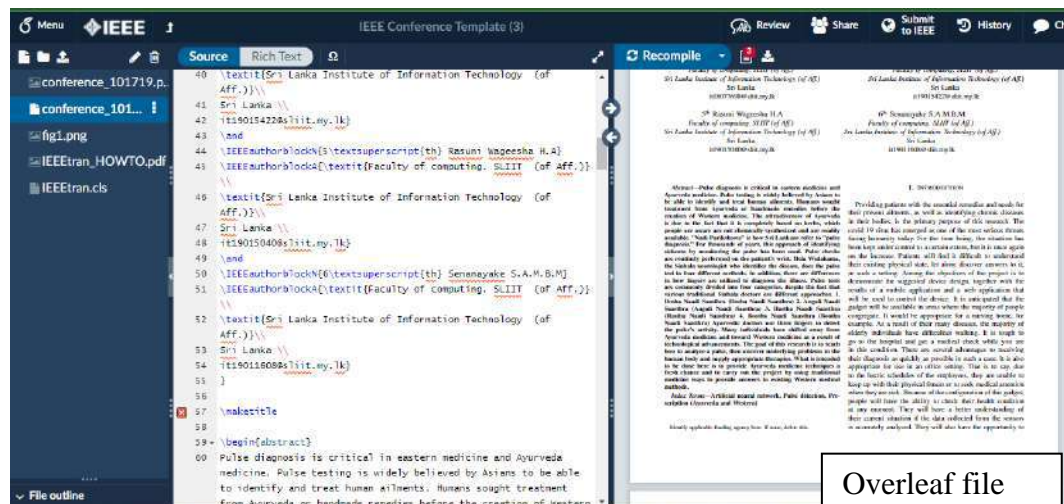
8: Implementation of individual overleaf file

Recorded meeting link: https://mysliit-my.sharepoint.com/personal/samantha_r_sliit_lk/_layouts/15/stream.aspx?id=%2Fpersonal%2Fsamantha%5Fr%5Fsliit%5Flk%2FDocuments%2FRecordings%2FWeekly%20Progress%20Meeting%20B%2ESc%2E%20projects%202022%20%28%20Every%20other%20weeks%29%2D20220320%5F220504%2DMeeting%20Recording%2Emp4&ga=1

Workload completed for the above period

|	Create the environment necessary for the project's development. (Install vs-code IDE, install Python, set up an environment, install flask).
Completed workload	Installed the required libraries for the project's development.
	Continue the dataset collection.
	Discussions with Supervisor that environment creation and necessary libraries installed.

10: Progress checking meeting by the supervisor

(2022/04/01 – 2022/04/15)

Workload completed for the period

	Discussions with an external supervisor that how to identify diseases by levels. (Heart attack, Pneumonia, Weezing)
Completed workload	Gather details about the diseases and categories those relevant features according to the risk level.
	Began studying through research articles and video tutorials how to train the model (disease characteristics).
	Continue individual overleaf document with new parts. (Literature review)
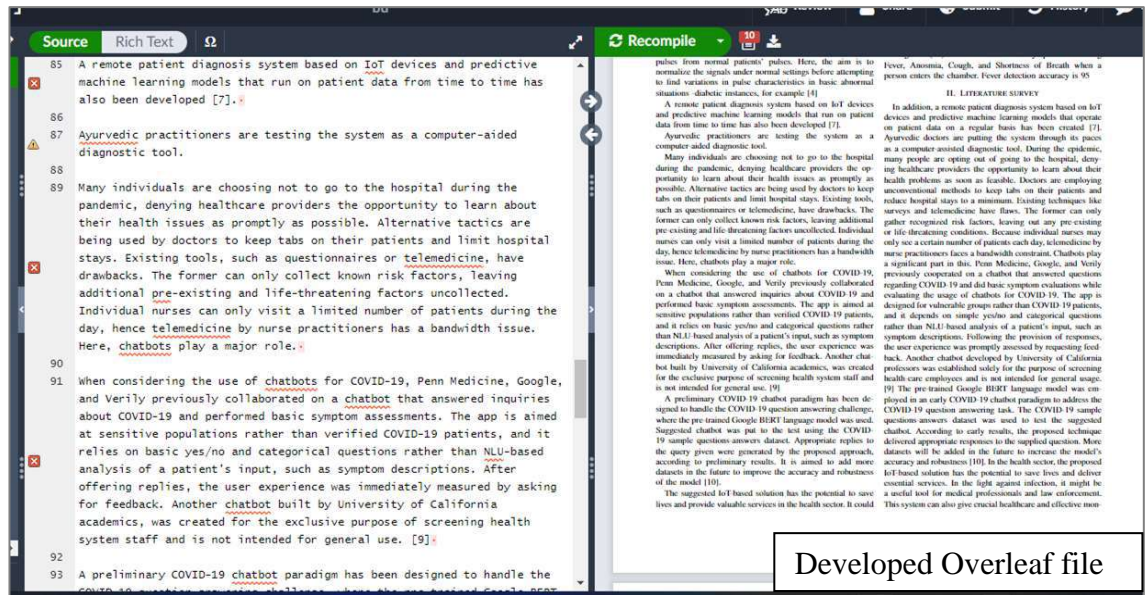
11: Continuation of overleaf document

Workload completed for the period

|	
Completed workload	Identified the relevant algorithm to train the model. (K- nearest neighbor)
	Started dataset model training of risk level-wise identification. • Feature extraction • Dataset cleaning • Divide the dataset for training (80%) and testing (20%).
	Continue dataset model training and develop some coding implementations to get an output part.
	Create presentation slides that include an individual diagram, ER diagram, Experiment, and evaluation of the proposed method.)

Workload completed for the week

Completed workload	Continue the risk level-wise identification of individual component implementations.

|	Finished model training and scaler file creation.
	Started coding part of the output generation. (Risk level: High, Medium, Low)

Workload completed for the period

|	Present the current progress to the supervisors.
	Started to create Project status document 1
Completed workload	Continue the coding part of the output generation.
	Started to use GitLab to create accounts and create separate branches for each member.
	Continue the overleaf document.
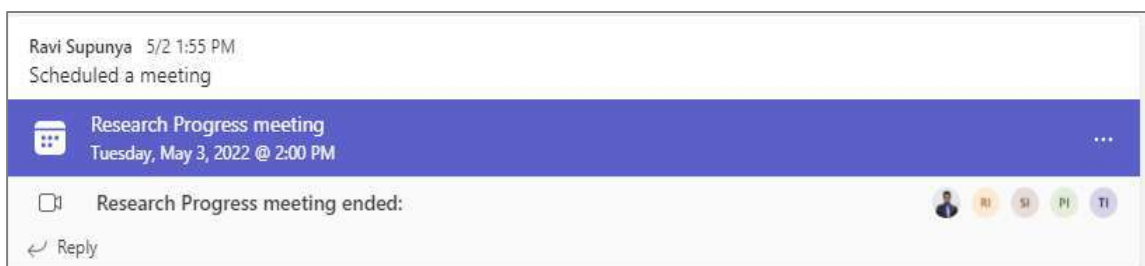
12: Current progress check by the supervisor
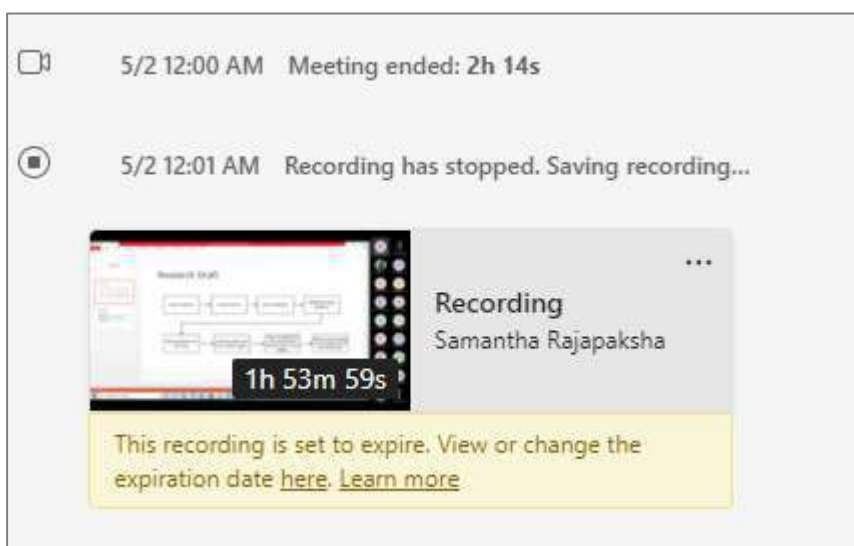
13: Arrenged meetings by co- supervisor

Workload completed for the period

Completed workload	Continue the coding part of the output generation and finished it before the PP2.
	Upload current implementations to GitLab and add commits.
	Created the proposal presentation and discuss the things that should be included with team members.
	Practice for the proposal presentation/ present it to the supervisor and got feedback.
	Send the created PP1 slides to the Supervisor.
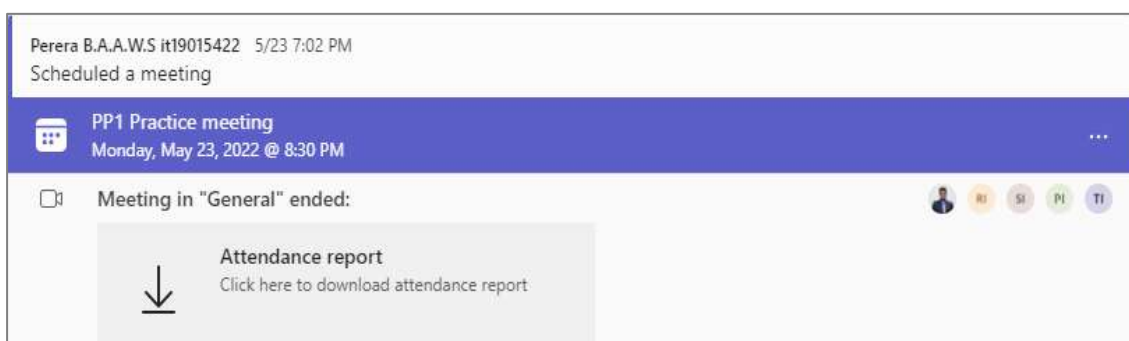
14: PP1 practice meeting with the supervisor

(2022/05/24)

Workload completed for the day

Summary	Proposal presentation 1 (50%)

(2022/05/25 – 2022/05/31)

Workload completed for the period

Completed workload	Continue the implementation of the individual component of disease analysis.

|	Start to find recommendations and suggestions according to the patient's risk level.
	Arrange meetings with external supervisor and discuss ideas.
	Refer to some research papers that researchers have written about those diseases.

__Workload completed for the period__

	Continue the find the best recommendations for those selected diseases.
Completed workload	Maintain a document that includes all the identified solutions to prevent such conditions.
	Continue the research paper creation and merge individually crested papers into one paper.
	Ready for the Co-supervisor weekly progress meeting.

__Workload completed for the week__

	Continue the research paper creation.
Completed workload	Include relevant references according to the attached details in the research paper.
	Collect some conferences to submit the research paper.
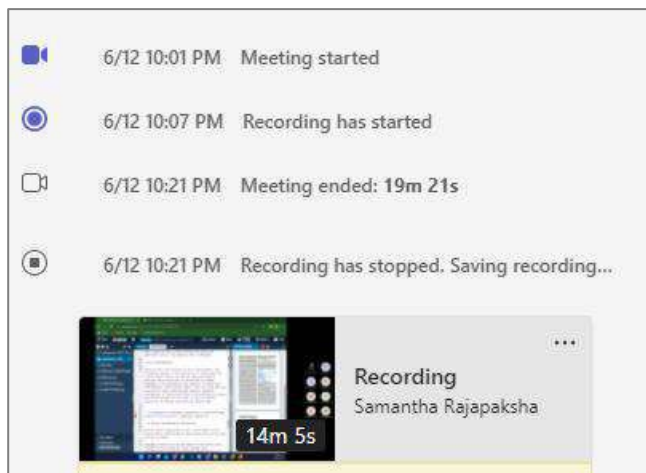
15: Weekly progress meeting by co- supervisor

Workload completed for the week

Completed workload	Collect some conferences to submit the research paper.
	Start to learn React for frontend development.
	Follow some tutorials that are relevant to the individual component implementation.

Workload completed for the period

Completed workload	Continue collecting conferences to submit the research paper.
	Finished the created research paper and send it to the supervisors to get their feedback.
	According to the supervisor's instructions, there were some modifications.
	A drafted research paper submitted to the cloud space.

16: Sent finalized research paper and supervisor reviews

<mark>(2022/07/03 – 2022/07/17)</mark>

Workload completed for the period

	Follow react tutorials for frontend development.
Completed workload	Install the relevant libraries for the individual component to the environment.
	Ready for the weekly progress meeting with the co-supervisor.

<mark>(2022/07/18 – 2022/07/31)</mark>

Workload completed for the period

	Continue tutorials following that related to the individual component implementation.
Completed workload	Finalized the research paper creation and send it for the supervisors' review.
	Submit the research paper to different conferences.
	Find some of our topic-related websites to get an idea to develop our front-end design.

Workload completed for the period

Completed workload	Started wireframe designing while discussing with group members.
	Continue following other web applications to get the best design ideas.
	Finalized the wireframe design.
	Meeting with co-supervisor to present research paper progress.
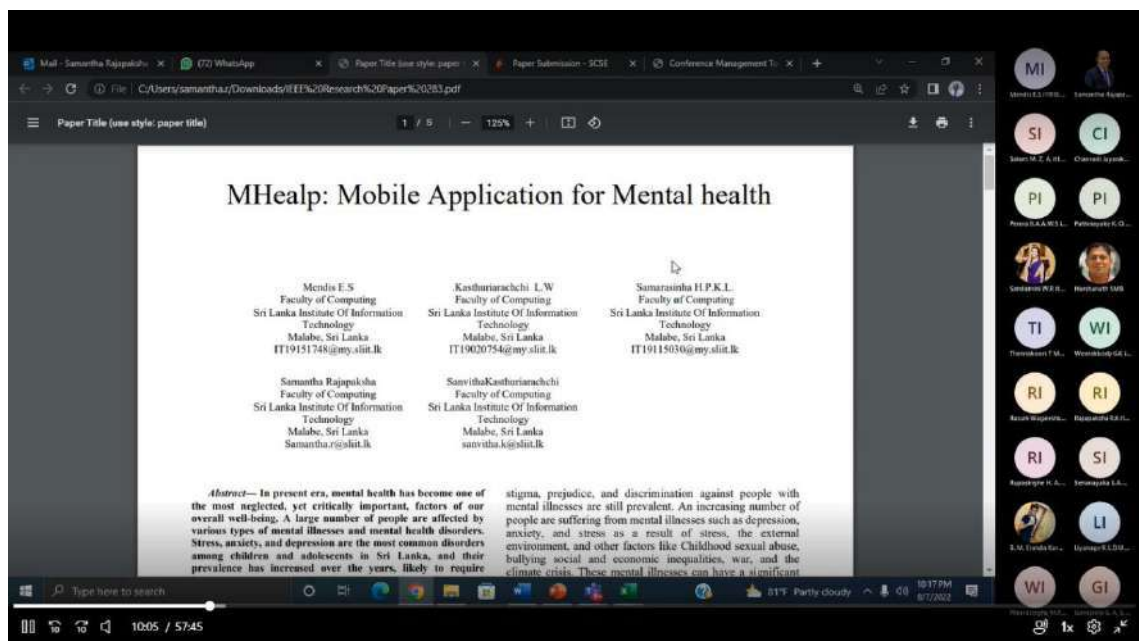
17: Progress meeting with co- supervisor

18: Samples of designed wireframes

__Workload completed for the week__

Completed workload	Start the frontend development implementations.
	Design home page, User details collecting page and user guide pages with steps of the web application with all group members.

__Workload completed for the week__

Completed workload	Create each member function separation page and allow members to continue their individual components.
	Start the development of individual components. • Create a heart attack identification page (Getting user details to analyze the disease) • Create a Pneumonia identification page • Create a Weezing identification page
	Added CSS parts using antd library.
	Start to create the project's final report.

__Workload completed for the week__

Completed workload	Continue the CSS parts adding to the component.
	Remake some frontend changes according to identifying some issues. (Not user-friendly then correct it)
	Start to implement backend developments using Flask server.
	Create API controllers.

Workload completed for the period

Completed workload	Submit the final report draft document
	Continue the API controller creation • GET method • POST method
	Try to develop recommendations according to the identified risk levels.
	Got the supervisor's feedback for the individual project proposal report to create the final report in advance.

(2022/09/24 – 2022/09/30)

Workload completed for the week

Completed workload	Continue the backend development and recommendation generation.
	Continue the final report creation.

(2022/10/01 – 2022/10/09)

Workload completed for the week

Completed workload	Continue the final report modifications
	Continue the backend development and recommendation generation process.
	Create the presentation for the PP2 and practice it with group members.
	Arrange a meeting with the supervisor to present the presentation as a practice.

19: 90% completion discussion with supervisor

20: Sent finalized prsesentation of PP2

(2022/10/10)

Workload completed for the day

Summary	Proposal presentation 2 (90%)

(2022/10/11 – 2022/10/18)

Workload completed for the week

Completed workload	Add testing for the individual component.
	Set Web application formatting styles and images.
	Make resolution problems in the web application.
	Adding testing implementation to the project's final report.

__Workload completed for the period__

Completed workload	Finalized the project's final report document and submitted it.
	Add a user guide to the web application before using the system.
	Started web assessment creation that describes our research project.
	Complete status document 2 and the project logbook.

(2022/11/01 – 2022/11/08)

__Workload completed for the week__

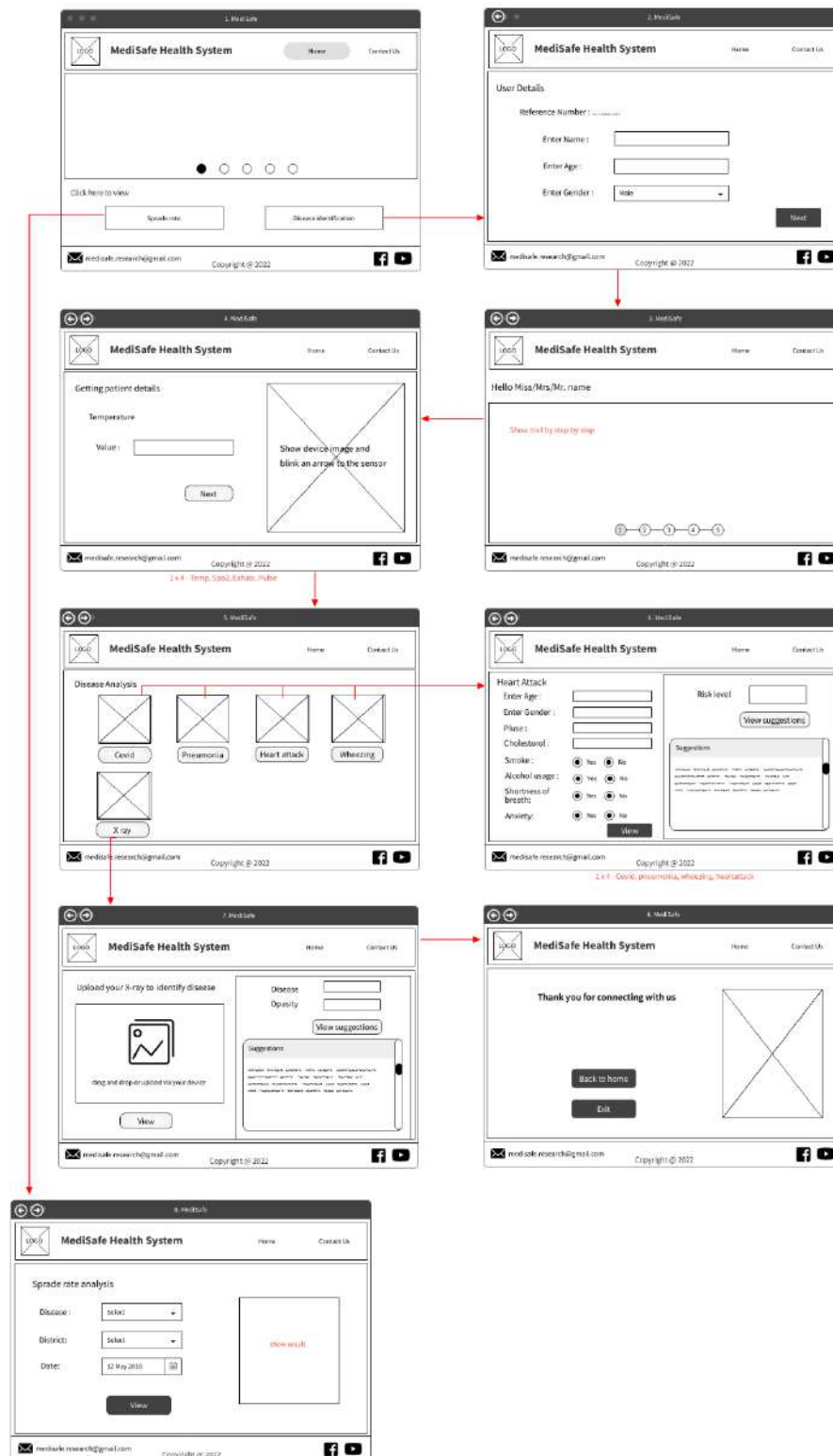| Completed workload | Test the implemented device with a web application on a physical area. (Commercialization) |
| | Continue web assessment creation that describes our research project. |

(2022/11/09 – 2022/11/16)

__Workload completed for the week__

Completed workload	Create the final presentation and practice it well with team members.
	Add some designs to the web application.
	Arrange a meeting with the supervisor and present it before participating in the final viva.

(2022/11/17 – 2022/12/01)

__Workload completed for the period__

| Completed workload | Final report proofreader submission |

Appendices

21: Designed wireframes