



# FITNESS-RELATED COACHING AND DIET PLANNING MOBILE APPLICATION USING IMAGE PROCESSING AND MACHINE LEARNING

R24-122

Status Document 2

BSc (Hons) in Information Technology Specializing in Information Technology

Department of Information Technology

Sri Lanka Institute of Information Technology

Sri Lanka

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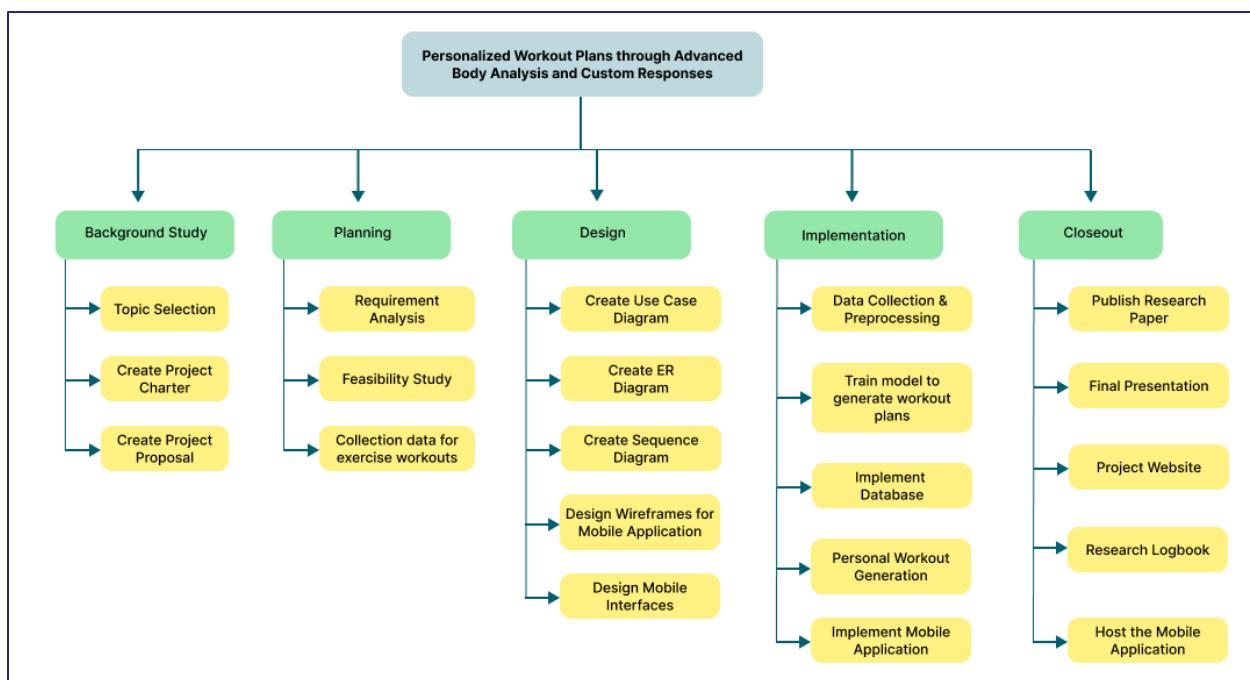
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## 1. Gantt Chart



## 2. Work Breakdown Structure



### **3. Completed Individual Component**

- ✓ Data Collection
- ✓ Implement the Algorithm for Recommend Workout Plans
- ✓ Frontend Implementation
- ✓ Testing

### **4. Documentation**

- Proposal Document
- Status Document
- Logbook
- Research Paper
- Draft Final Report

## 5. Document Submission

### 5.1 Proposal Document Submission

The screenshot shows a OneDrive interface for a group named 'CDAPSubmissionCloud'. The folder path is '2024RegCloud > R24-122-Students > 1. Project Proposal > Individual Reports'. The table lists the following files:

Name	Modified	Modified By
Proposal Report 24 - IT21114144.pdf	February 29	Herath M.H.S.M it2111414
Proposal report-24-IT21128936.pdf	February 29	Rajakaruna R.H.M.S.A. it21
Proposal_Report_24_IT21002106.pdf	February 29	Herath H.M.R.B it2100210
proposal-report_24-IT21011016.pdf	February 29	Ilukpitiya I.M.D.J.R.B it210
ReadMe.txt	February 20	CDAP SLIT

### 5.2 Status Document 1 Submission

The screenshot shows a OneDrive interface for a group named 'CDAPSubmissionCloud'. The folder path is '2024RegCloud > R24-122-Students > 2. Status Document 1'. The table lists the following files:

Name	Modified	Modified By
ReadMe.txt	February 20	CDAP SLIT
Status Document 01 - 24 - IT21114144.pdf	May 6	Herath M.H.S.M it2111414
Status_Document_01_24-IT21002106.pdf	May 6	Herath H.M.R.B it2100210
Status_Document_01_24-IT21128936.pdf	May 6	Rajakaruna R.H.M.S.A. it21
Status-Document-24-IT21011016.pdf	May 6	Ilukpitiya I.M.D.J.R.B it210

### 5.3 Research Paper (draft) Submission

The screenshot shows a OneDrive interface for a group named 'CDAPSubmissionCloud'. The folder path is '2024RegCloud > R24-122-Students > 4. Research Paper'. The table lists the following files:

Name	Modified	Modified By
Publication Details	February 20	CDAP SLIT
Turnitin report	February 20	CDAP SLIT
IEEE Research Paper Template-a4.docx	February 20	CDAP SLIT
R24-122(Progress Of research 02 ).pdf	June 14	Herath H.M.R.B it2100210
R24-122(Progress Of research).pdf	May 10	Herath H.M.R.B it2100210
ReadMe.txt	February 20	CDAP SLIT

## 5.4 Final Report (draft) Submission

The screenshot shows a Microsoft OneDrive interface for a group named 'CDAPSubmissionCloud'. The group is described as a 'Private group'. The navigation bar includes options like '+ New', 'Upload', 'Share', 'Sync', 'Add shortcut to OneDrive', 'Download', 'Export to Excel', 'Automate', 'Integrate', and 'All Documents'. The main content area displays a list of files under the path '2024RegCloud > R24-122-Students > 6. Final Report & Presentation > Final Reports'. The list includes:

Name	Modified	Modified By
Turnitin reports	February 20	CDAP SLIT
Final Group Report R24-122.pdf	August 23	Herath H.M.R.B I2100210
Final Report 24 - IT21011016.pdf	August 23	Ilukpitiya I.M.D.J.R.B I2101
Final Report 24 - IT21128936.pdf	August 22	Rajakaruna R.H.M.S.A. I21
Final Report IT21114144.pdf	August 23	Herath M.H.S.M I2111414
Final_Report_24_IT21002106.pdf	August 23	Herath H.M.R.B I2100210
ReadMe.txt	February 20	CDAP SLIT

## 6. Research Paper Submission

### 6.1 ICAC Research Paper Submissions

The screenshot shows the Microsoft CMT (Conference Management Tool) Author Console. The top navigation bar includes 'Submissions', 'Help Center', 'Select Your Role: Author', '6ICAC2024', and 'Rusuru Herath'. The main area is titled 'Author Console' and displays a message: 'Please click here to view Welcome Message & Instructions.' Below this, there is a 'Create new submission...' button. The submission details for paper ID 46 are shown in a table:

Paper ID	Title	Track	Files	Actions
46	AI-Driven Personalized Fitness Coaching with Body Type-Based Workout and Nutrition Plans and Real-Time Exercise Feedback Show abstract	Intelligent Health Tech & Assistive Solutions	Submission files: ① AI-Driven Personalized Fitness Coaching with Body Type-Based Workout and Nutrition Plans and Real-Time Exercise Feedback.pdf	Submission: <input checked="" type="checkbox"/> Edit Submission <input type="checkbox"/> Edit Conflicts <input checked="" type="checkbox"/> Delete Submission

At the bottom of the screen, a Windows taskbar shows various icons and the date '4/18/2024'.

## 7. Finalize Work Breakdown Structure & Allocated Resources for each Area

### 7.1 Teams Task Planner (Group)

#### 7.1.1 Teams Task Planner Dashboard

The screenshot shows a dashboard with four columns of tasks assigned to team members. Each column has a header with a member's name and a 'Completed tasks' count. Below the headers are lists of tasks with checkmarks and descriptions.

Member	Completed tasks	Task Description
Herath M.H.S.M it21114144	22	Integrated Backend and Frontend Implementation Completed by Herath H.M.R.B it2...
Herath H.M.R.B it21002106	22	Create the Group Final report Final Report Completed by Herath H.M.R.B it2...
Ilukpitiya I.M.D.J.R.B it21011016	20	Create API Implementation Model Integrate the with frontend Implementation Design the UI Of Body Identification Implementation Completed by Ilukpitiya I.M.D.J.R....
Rajakaruna R.H.M.S.A. it21128936	22	Create the Group Final report Final Report Testing the Function Implementation Create API and Model Integrated to Frontend Implementation Completed by Herath H.M.R.B it2...

#### 7.1.2 Teams Task Planner Grid View

The screenshot shows a grid view of tasks under a 'Project Plan' linked plan. The left sidebar shows a list of tasks with checkmarks. The main area displays the tasks in a grid format with columns for Assignment, Start date, Due date, and Bucket. A filter sidebar on the right allows filtering by keyword, due date, priority, progress, and label.

Title	Assignment	Start date	Due date	Bucket
Topic Selection			20/12/2023	Project Initiation
Select the 4 Research areas			30/12/2023	Project Initiation
Collecting Data for exercise workouts			20/3/2024	Final Report
Collect Data for body type identification			31/3/2024	Final Report
Collect Data for Foods and Create the Dataset			22/3/2024	Project Initiation
Collect Data for workout plan and Create the Dataset			24/3/2024	Final Report
Create User Case Diagrams for identify body type co...			23/2/2024	Research Paper
Create the Case Diagrams for Diet Suggest Component			23/2/2024	Research Paper
Create the Case Diagrams for Workout Plan Suggest ...			23/2/2024	Research Paper
Create the Case Diagrams for Real time exercise Com...			23/2/2024	Research Paper
Collect Data for Meals and Create the Dataset			28/3/2024	Final Report

## 7.2 Teams Task Planner (Individual)

### 7.2.1 Teams Task Planner Grid View – IT21114144

The screenshot shows the Microsoft Teams Task Planner in Grid view. The left sidebar lists pinned items, including a 'Project Plan' under 'RG'. The main area displays a grid of tasks:

Title	Assignment	Start date	Due date	Bucket	Progress	Priority
Select the 4 Research areas	● ● HI		30/12/2023	Project Initiation	Completed	! Important
Collect Data for workout plan and Create the Dataset	HI Herath M.H.S.M it2		24/3/2024	Final Report	Completed	! Important
Create the Case Diagrams for Workout Plan Suggest ...	HI Herath M.H.S.M it2		23/2/2024	Research Paper	Completed	• Medium
Create High Fidelity Mobile interface for Workout Pla...	HI Herath M.H.S.M it2		25/2/2024	Research Paper	Completed	• Medium
Create the Figma UI for each of your interfaces:-	HI Herath M.H.S.M it2		28/4/2024	Research Paper	Completed	• Medium
Collection emoji feedback dataset and preprocessing ...	HI Herath M.H.S.M it2		20/3/2024	Implementation	Completed	• Medium
Create Presentation Slides for Methodology Evidence ...	HI Herath M.H.S.M it2		30/4/2024	To do	Completed	• Medium
Train model to generate workout plans	HI Herath M.H.S.M it2		16/4/2024	Implementation	Completed	• Medium
Create the Status 01 doc	HI Herath M.H.S.M it2		6/5/2024	To do	Completed	• Medium
Create the Status 01 doc	HI Herath M.H.S.M it2		6/5/2024	To do	Completed	• Medium
Create Discussion for Workout Recommendation Syst...	HI Herath M.H.S.M it2		13/6/2024	Implementation	Completed	• Medium

[Add new task](#)

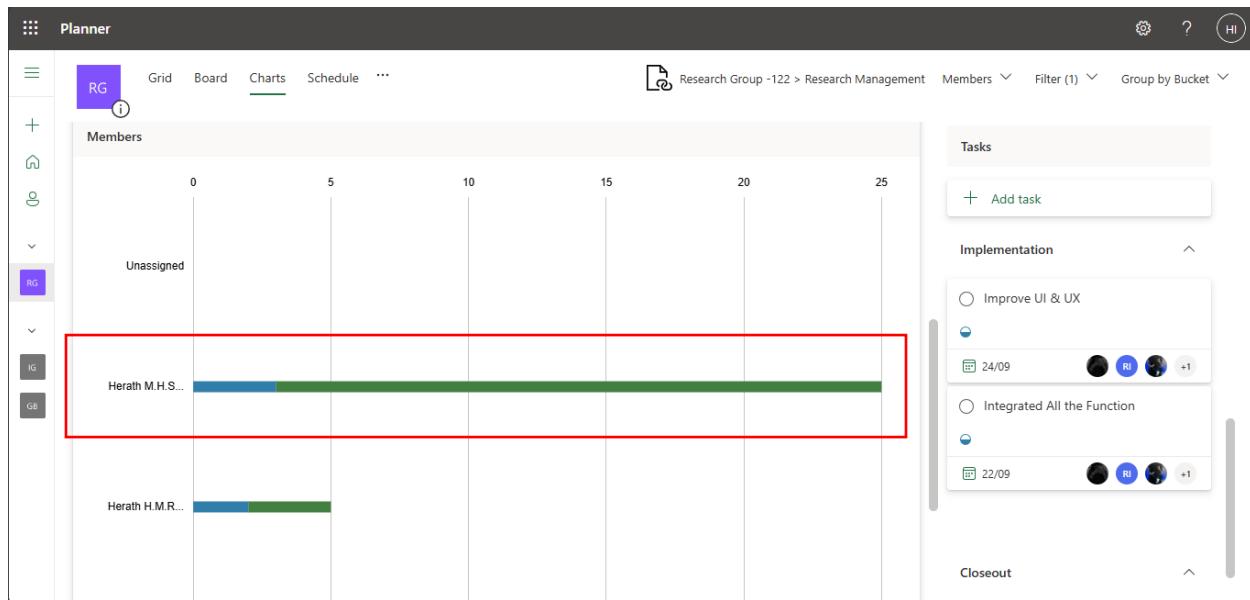
### 7.2.2 Teams Task Planner Dashboard – IT21114144

The screenshot shows the Microsoft Teams Task Planner in Dashboard view. The left sidebar lists pinned items, including a 'Project Plan' under 'RG'. The main area displays pinned tasks:

- Final Report**
  - + Add task
  - Completed tasks: 2
  - Create Individual Final Report** (Completed by Herath M.H.S.M it2...)
  - Collect Data for workout plan and Create the Dataset** (Completed by Herath M.H.S.M it2...)
- Research Paper**
  - + Add task
  - Completed tasks: 6
  - Write Research Paper methodology of Generate Personalized Workout Plans** (Completed by Herath M.H.S.M it2...)
  - Write Research paper Literature review** (Completed by Herath M.H.S.M it2...)
  - Write Research Paper Abstract** (Completed by Herath M.H.S.M it2...)
- Implementation**
  - + Add task
  - Completed tasks: 6
  - Create Discussion for Workout Recommendation System** (Completed by Herath M.H.R.B it2...)
  - Train model to generate workout plans** (Completed by Ilukpitiya I.M.D.J.R....)
  - Collection emoji feedback dataset and preprocessing them** (Completed by Herath M.H.S.M it2...)

## 8. Teams Planner Charts

### 8.1 Teams Planner Charts – IT21114144



## 9. Test Results

### 9.1 Test Cases

#### 9.1.1 Test Cases for Workout Plan Recommendation

Test Case ID	01
Test Scenario	Ensure the system provides relevant workout plan based on the body analysis and body goal.
Precondition	Users do a body analysis and select their body goal. The system recommends relevant workout plan for the body type and the body goal.
Input Data	Identified body type during body analysis and body goal
Expected Outcome	The system should recommend a weekly workout plan
Actual Outcome	The system correctly recommends a workout plan for a week
Status	Pass

### 9.2 Results

#### Similarity Checking

```
Cosine Similarity Matrix:  
Goal           Fat Loss  Fat Loss  Fat Loss  Fat Loss  Fat Loss  \\\nGoal  
Fat Loss      1.000000  0.000000    0.0  0.000000    0.0  
Fat Loss      0.000000  1.000000    0.0  0.225421    0.0  
Fat Loss      0.000000  0.000000    1.0  0.000000    0.0  
Fat Loss      0.000000  0.225421    0.0  1.000000    0.0  
Fat Loss      0.000000  0.000000    0.0  0.000000    1.0  
Muscle Tone and Strength  1.000000  0.000000    0.0  0.000000    0.0  
Muscle Tone and Strength  0.388083  0.638629    0.0  0.143960    0.0  
Muscle Tone and Strength  0.000000  1.000000    0.0  0.225421    0.0  
Muscle Tone and Strength  0.000000  0.000000    1.0  0.000000    0.0  
Muscle Tone and Strength  0.000000  0.000000    0.0  0.000000    0.0  
Muscle Tone and Strength  0.000000  0.225421    0.0  1.000000    0.0  
Muscle Tone and Strength  0.000000  0.225421    0.0  0.100000    0.0  
Getting Bulk     1.000000  0.000000    0.0  0.000000    0.0  
Getting Bulk     0.000000  1.000000    0.0  0.225421    0.0  
Getting Bulk     1.000000  0.000000    0.0  0.000000    0.0
```

#### Testing

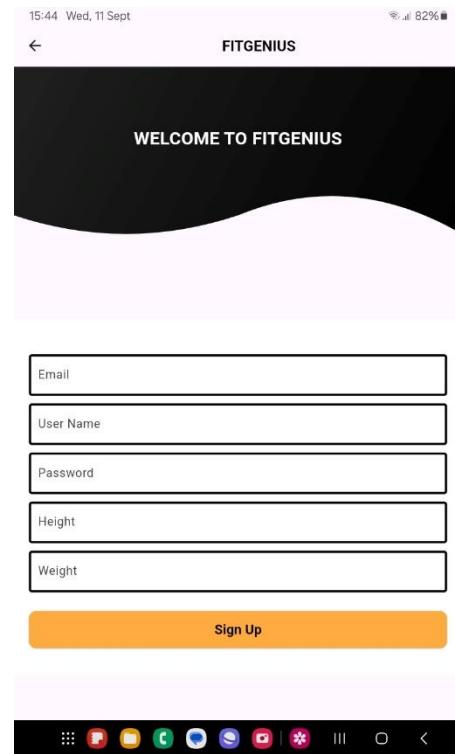
```
: goal = 'Gain Weight'  
top_workouts = recommend_workouts(goal, df, cosine_sim_df, top_n=2)  
  
print(f'Recommended Workouts for "{goal}":')  
for i, workout in enumerate(top_workouts, 1):  
    print(f'{i}. {workout}')  
  
Recommended Workouts for 'Gain Weight':  
1. Body weight squat 8 x 3  
2. Bent Overhand Row Dumbbell 8 x 3
```

## 9.2.1 Mobile Application

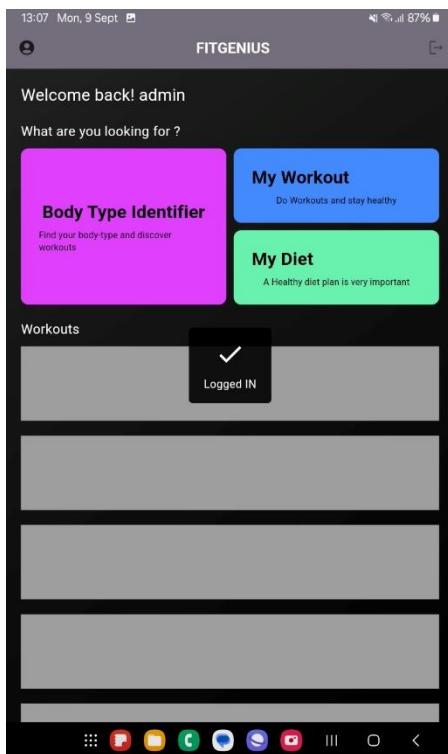
### Login Page



### Sign Up Page

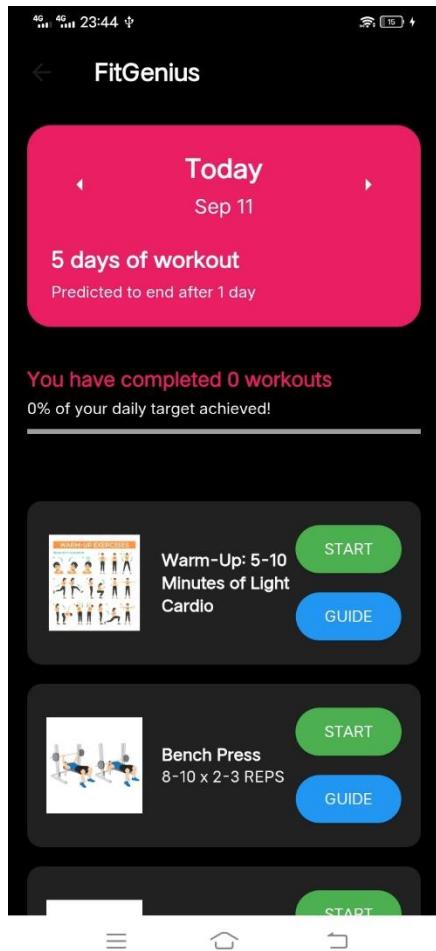


### Dashboard

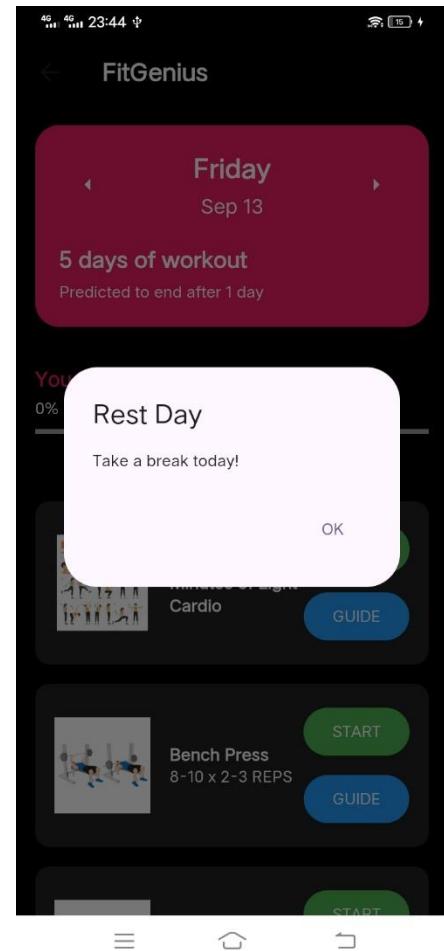


## Workout Plan Recommendation (IT21114144)

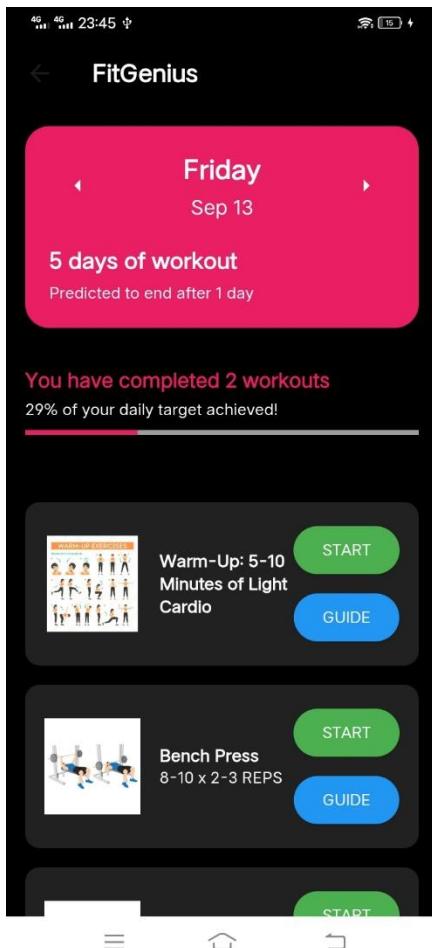
### Workout Plan



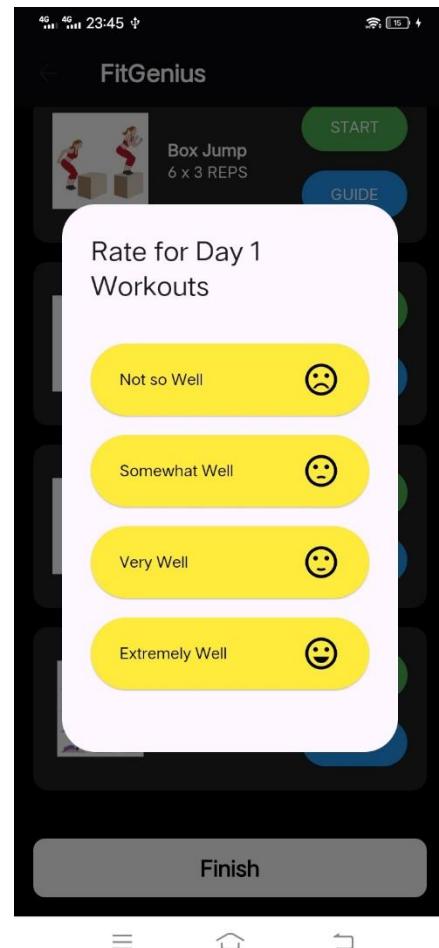
### Displaying Rest Day



## Progress Tracking



## Emoji Feedback



## 10. Emails

We reached out to a professor via email, asking them to take the position of our project co-supervisor.

The screenshot shows an email from Rusiru Bandara (rusirubandaratherath5@gmail.com) to jenny.k. The subject is "Invitation to Join as Co-Supervisor for Research Group". The email body starts with a greeting and expresses interest in a research project under Prof. Koliya Pulasinghe's supervision. It lists four students in the group and asks for a suitable time to accommodate the supervisor's schedule. The email ends with thanks for consideration and a positive response.

Invitation to Join as Co-Supervisor for Research Group

Rusiru Bandara <rusirubandaratherath5@gmail.com>  
to jenny.k

Dear Ms. Jenny Krishara,

I hope this email finds you well. I am reaching out to you on behalf of our research group under the supervision of Prof. Koliya Pulasinghe at SLIIT. We are currently engaged in an IT specialization research project that we believe aligns closely with your expertise and research interests.

Our research group consists of dedicated students pursuing IT specialization, and we are eager to enhance our project through the valuable guidance of a co-supervisor.

The students in our research group are as follows:

1. Herath H.M.R.B - IT21002106
2. Ilukpitiya I.M.D.J.R.B - IT21011016
3. Herath M.H.S.M - IT21114144
4. Rajakaruna R.H.M.S.A - IT21128936

Please let us know a time that suits you, and we will ensure to accommodate your schedule accordingly.

Thank you for considering our invitation, and we eagerly anticipate the possibility of your positive response.

Reply Forward

We got permission from our supervisor to submit the research paper to ICAC.

The first email is from Herath H.M.R.B (IT21002106) to Koliya Pulasinghe. It attaches a research paper (611 KB) and asks for approval to submit to the ICAC conference. The second email is a reply from Koliya Pulasinghe, expressing appreciation for the paper and stating it is ready for submission. Both emails include standard email header information like recipient, subject, and timestamp.

Herath H.M.R.B IT21002106  
To: Koliya Pulasinghe  
Cc: Jenny Krishara; Ilukpitiya LM.DJR.B IT21011016; Rajakaruna R.H.M.S.A. IT21128936; Herath M.H.S.M IT21114144

Final Research Paper - RP24 ...  
611 KB

Hi Koliya Sir,

I am writing to kindly request your approval for the submission of our research paper to the ICAC organized by SLIIT.

The final version of the paper is attached for your review. I would appreciate it if you could verify the following:

1. The quality of the proposed conference (ICAC SLIIT).
2. The quality of the paper is adequate for submission.
3. The names and affiliations of all supervisors are correctly mentioned.
4. The affiliation for student authors is correct.

We look forward to your feedback and approval as soon as possible. The submission deadline for ICAC is August 20th.

Thank you for your guidance and support throughout this process.

Best regards,  
Rusiru Bandara Herath

Koliya Pulasinghe<koliya.p@slit.lk>  
To: Herath H.M.R.B IT21002106  
Cc: Jenny Krishara; Ilukpitiya LM.DJR.B IT21011016; Rajakaruna R.H.M.S.A. IT21128936; Herath M.H.S.M IT21114144

[EXTERNAL EMAIL] This email has been received from an external source – please review before actioning, clicking on links, or opening attachments.

Dear Students,

This has resolved the issues I raised and is ready for submission. I can approve this for the ICAC, but please continuously improve this research work until you get the acceptance.  
Kind Regards,  
Koliya

## **11.Physical meeting**

11.1      Physical Meeting with the Supervisor – 23.02.2024

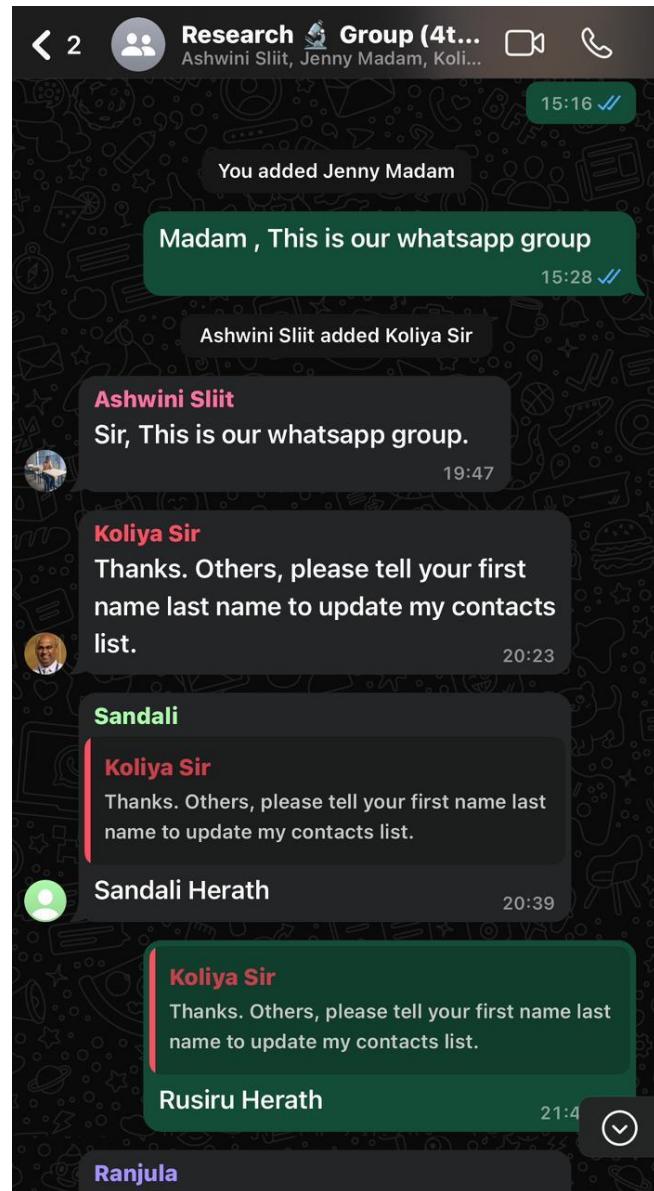


11.2      Physical Meeting with Group Members for Progressing the Research Work

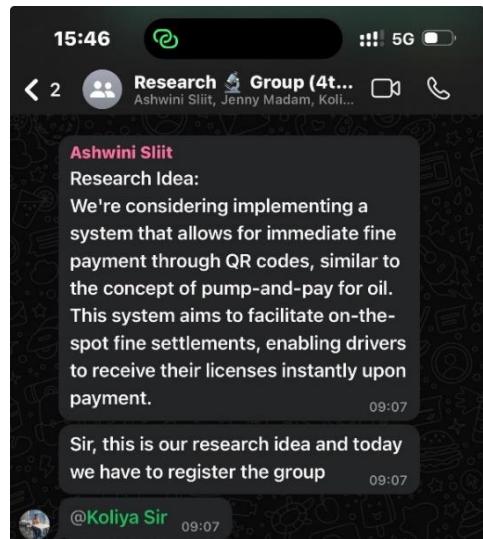


## 12.Screenshots of WhatsApp Group Chats

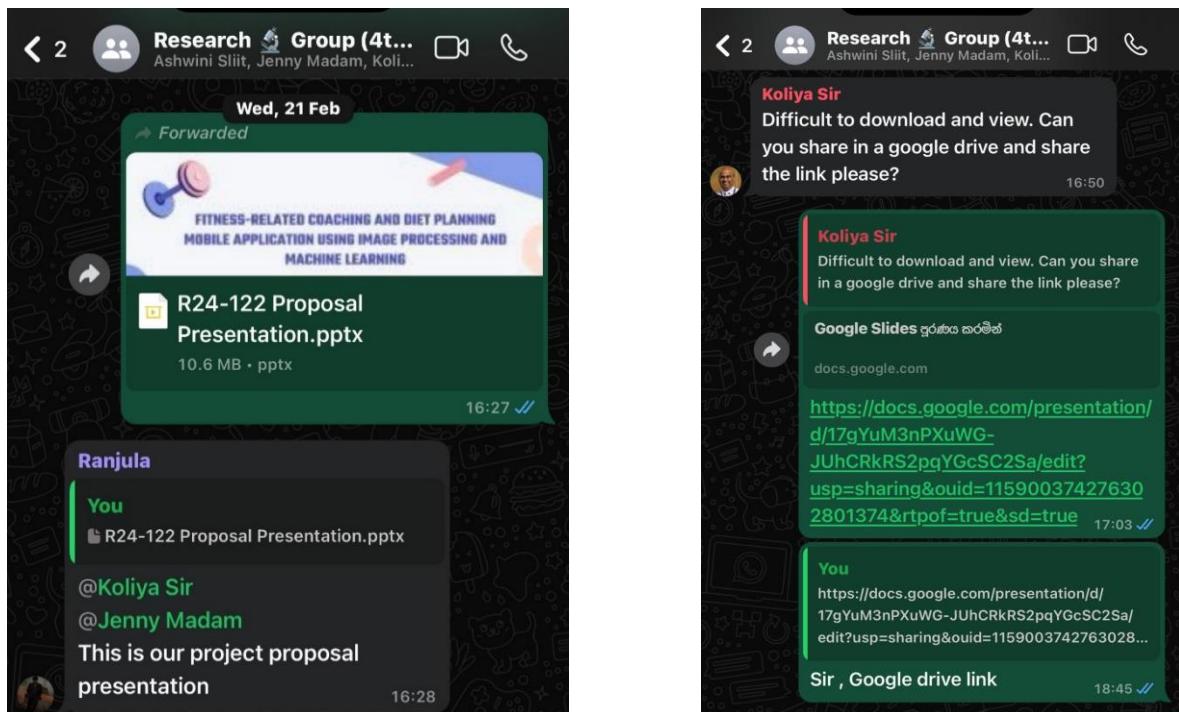
### 12.1 Proof of acknowledgment from both the Supervisor and Co-supervisor



## 12.1 Confirmation of one of our Conceptual Hypotheses



## 12.2 Reviewing our proposal report with both the Supervisor and Co-supervisor for feedback.



## 12.3 Research paper writing and review with Supervisors' guidance

**Ranjula**

@Koliya Sir Sir, we are finishing our research paper and need to submit to ICAC soon. Could you please review it and give us your feedback? if there any mistakes or improvement let us know sir. we will email our research paper to you.

Edited 15:46

Sat, 10 Aug

@Koliya Sir Sir we emailed our research paper to you two weeks ago, sir can you please check and give us your feedback on it to improve or correct the material, as soon as possible as the ICAC Submission deadline is on the 20th of august. Thank you.

01:06 ✓

Koliya Sir

Will do 08:12

Koliya Sir

Will do

Ok sir 08:49 ✓

**Koliya Sir**

Please send me the latest paper

11:58

Koliya Sir

Please send me the latest paper

Ok sir. 11:58 ✓

**AI-Driven Personalized Fitness Coaching with Body Type-Based Workout and Nutrition Plans and Real-Time Exercise Feedback**

AI-Driven Personalized Fitness Coaching with Body Type-Based... 6 pages • 388 KB • pdf

12:03 ✓

Thu, 22 Aug

@Koliya Sir Sir we have to upload the final report by midnight tomorrow, it is called the final report draft in the courseweb , we still havent fully implemented the research system 100% , it is around 75% completed sir should we write about the work we have done upto now in the report ?

Edited 18:24 ✓

**Koliya Sir**

ICAC2024  
6<sup>th</sup> INTERNATIONAL CONFERENCE ON ADVANCEMENTS IN COMPUTING  
ONLINE PRE-CONFERENCE WORKSHOP  
HOW TO WRITE A RESEARCH PAPER

All undergraduate and postgraduate students are invited to join ICAC 2024 - Pre Conference Workshop on "Drafting Your Research Paper" on 15th August 2024 at 6.00 PM. Please find the meeting link here <https://tinyurl.com/pw4x474h>

09:17

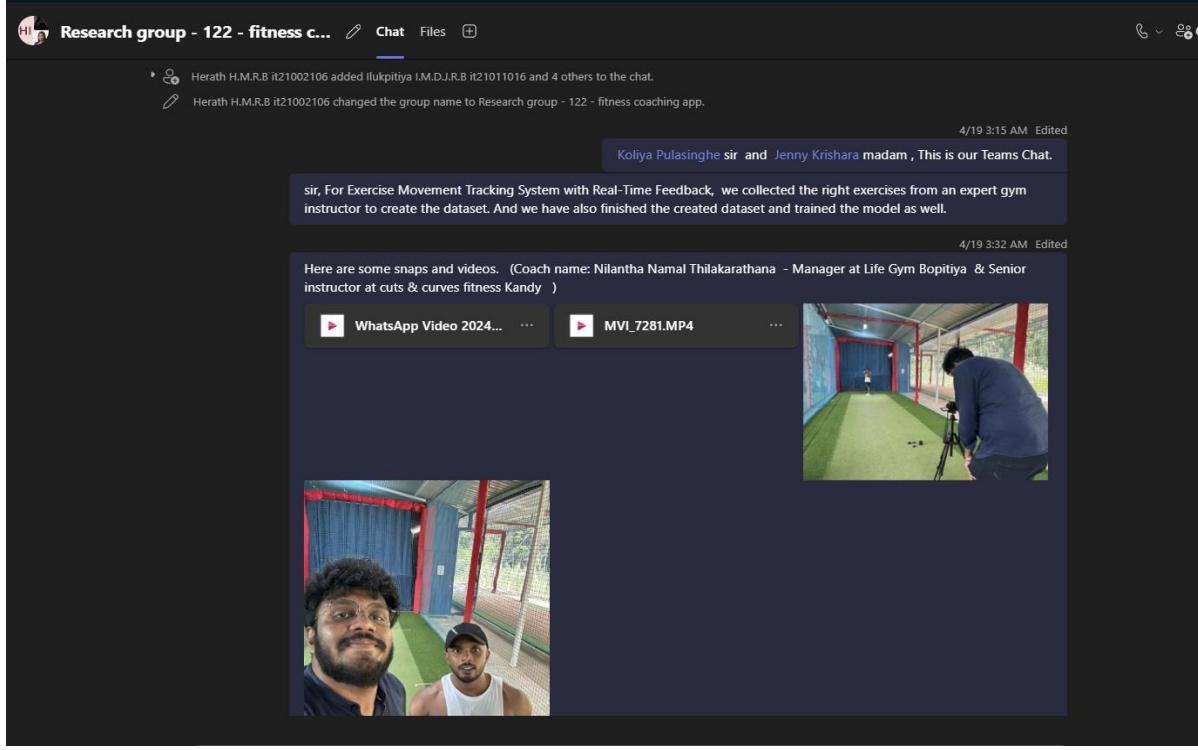
Please attend this. 09:18

Fri, 16 Aug

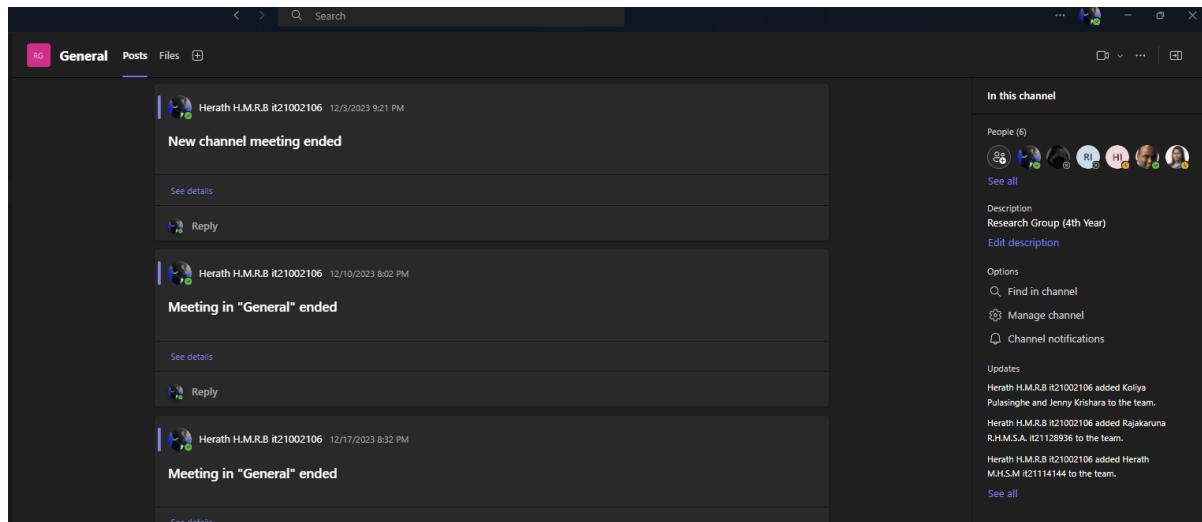
@Koliya Sir Sir we are in the campus, you are on campus, could you please let us know what time you are

## 13.Screenshots of the chats in MS Teams

### 13.1 Informing the Supervisor about Data Collection



### 13.2 Team Channel in the MS Team



### 13.3 Chats in the MS Team

The screenshot shows a Microsoft Teams channel named "Research Management". The channel has a dark theme. On the left, there's a list of messages:

- Herath H.M.R.B #21002106 4/20 7:00 AM: I added a tab at the top of this Channel. Check it out!  
Project Plan
- Herath H.M.R.B #21002106 4/20 7:03 AM: Here's our project plan !!!
- Reply
- Herath H.M.R.B #21002106 4/20 7:07 AM: IMPORTANT! Please add all necessary files to the folders in the Files tab...
- Ilukpitiya I.M.D.J.R.B #21011016 4/20 10:56 AM: Got it !
- Herath M.H.S.M #21114144 4/20 8:24 PM: Proposal Report - Uploaded  
Reply
- Herath H.M.R.B #21002106 4/21 9:29 PM: <https://youtu.be/wCUa7uJ52M?si=gdcft1LDqwwt9JXV>

On the right, the "In this channel" sidebar is visible, showing people, description, options, and updates.

The screenshot shows the same Microsoft Teams channel "Research Management". The channel has a dark theme. On the left, there's a list of messages:

- Herath H.M.R.B #21002106 4/21 9:29 PM:
  - <https://youtu.be/wCUa7uJ52M?si=gdcft1LDqwwt9JXV>
  - <https://youtu.be/dgMDdSemFg?si=hMOTx8oM4SnTCT>
- YouTube video thumbnail: Flutter TensorFlow Lite | Create Machine Learning Prediction model Flutter APP Complete Tutorial by Thushira Deepal. 16.5K views 2 years ago. Open Share in meeting
- Reply
- Herath H.M.R.B #21002106 4/21 9:42 PM:

```
import cv2
import mediapipe as mp
import pandas as pd
import os

# Load MediPipe Pose model
mp_pose = mp.solutions.pose
pose = mp_pose.Pose()
```

see more  
Reply

On the right, the "In this channel" sidebar is visible, showing people, description, options, and updates.

Herath H.M.R.B it21002106 4/22 6:46 PM

Figma UI Discussion  
Monday, April 22, 2024 9:30 PM

Scheduled a meeting

Herath M.H.S.M it21114144 4/22 9:48 PM  
study area

Ilukpitiya I.M.D.J.R.B it21011016 4/22 10:27 PM  
<https://www.figma.com/file/tVrUAYFcUrr2nH1fMIX0G/Research?type=design&node-id=0%3A1&mode=design&t=sCPcxEKSYamtlFX8-1>  
get the access thru the link !!

Reply

Ilukpitiya I.M.D.J.R.B it21011016 4/23 9:03 PM

I found a python code to download images to our data sets using bing search

```
from bing_image_downloader import downloader

# Define the refined search query
query = 'Mesomorph body front view real person'
limit = 100 # Number of images to download

# Download images for the refined query
downloader.download(query, limit, output_dir='mesomorph_images', adult_filter_off=True, force_replace=False, timeout=60)
```

1 like

Reply

Ilukpitiya I.M.D.J.R.B it21011016 4/23 9:26 PM

Herath H.M.R.B it21002106 4/23 3:54 AM

Herath M.H.S.M it21114144 sandali, I think the way you have done it is right. But, meet sir and ask him

<https://youtu.be/3ecNC-So0r4?si=ZLnMdifu8rYEA4Pw>

YouTube

**Collaborative Filtering**  
Machine Learning Career Track

Mihir Thakkar  
Founder and Instructor  
mihir@codeheroku.com

CODE HEROKU

Movie Recommendation System with Collaborative Filtering

Code Heroku  
164.2K views · 4 years ago

Open Share in meeting

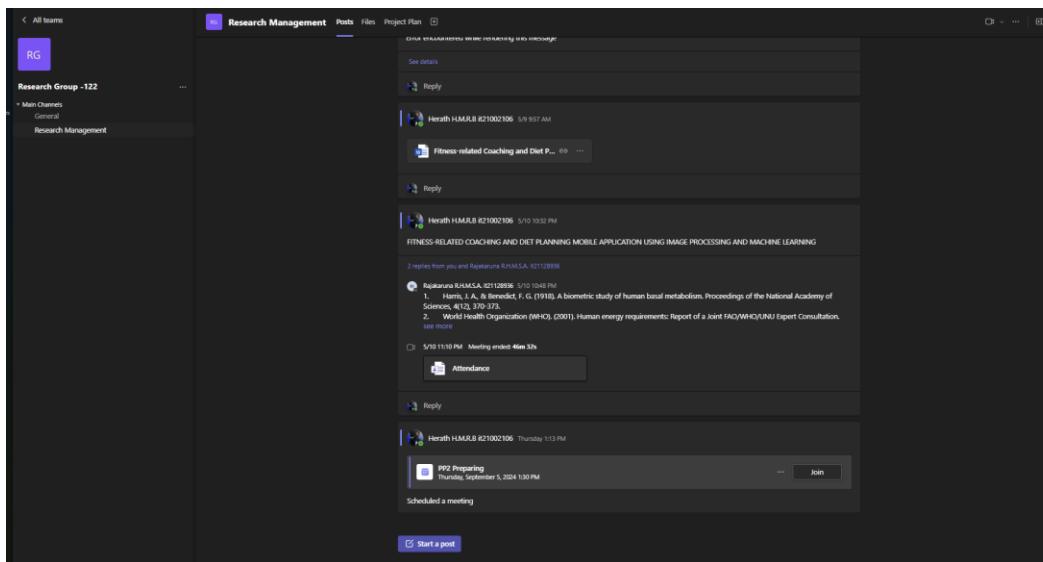
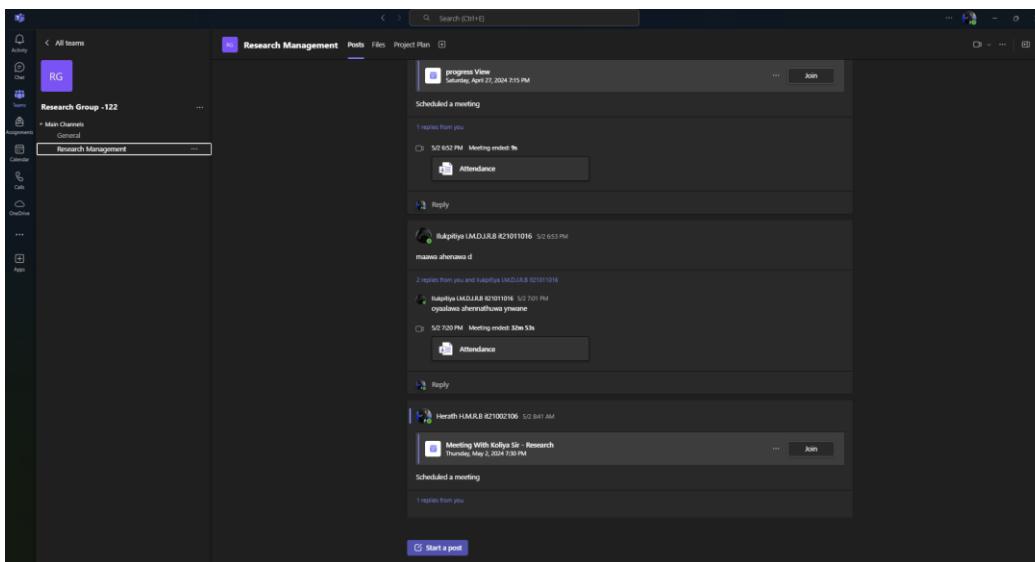
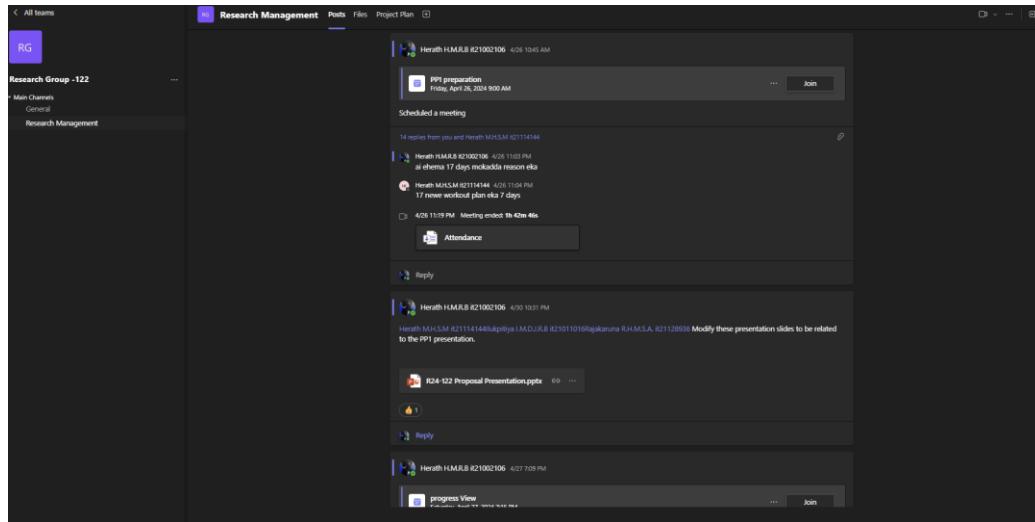
By using YouTube, you agree to the privacy policy, terms of use, and permissions.

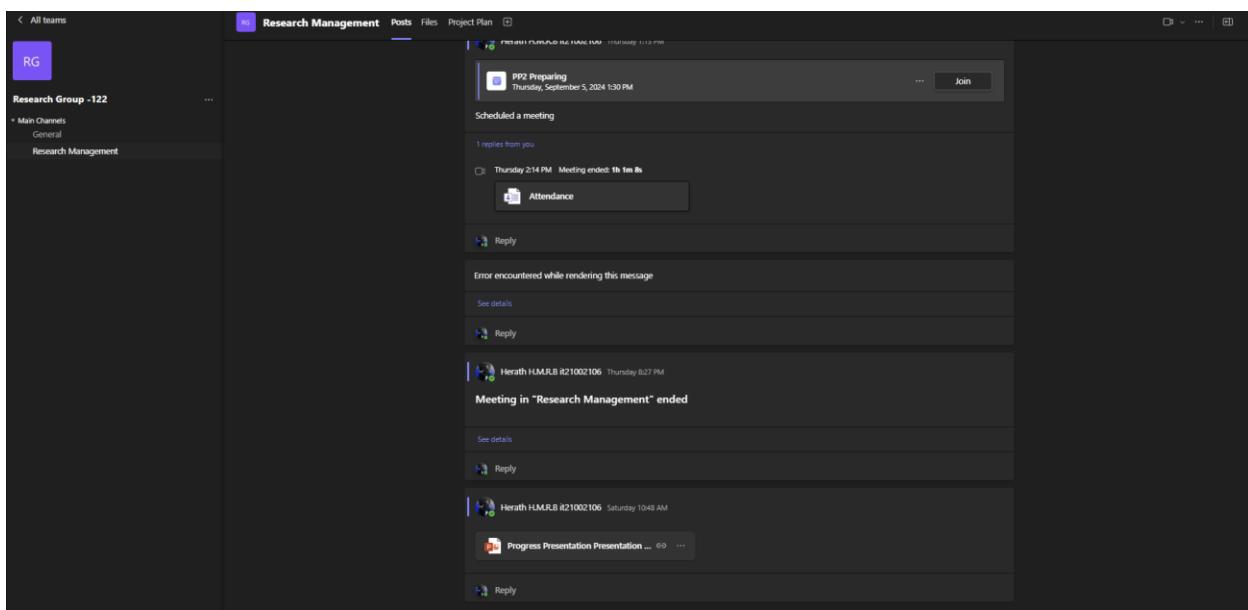
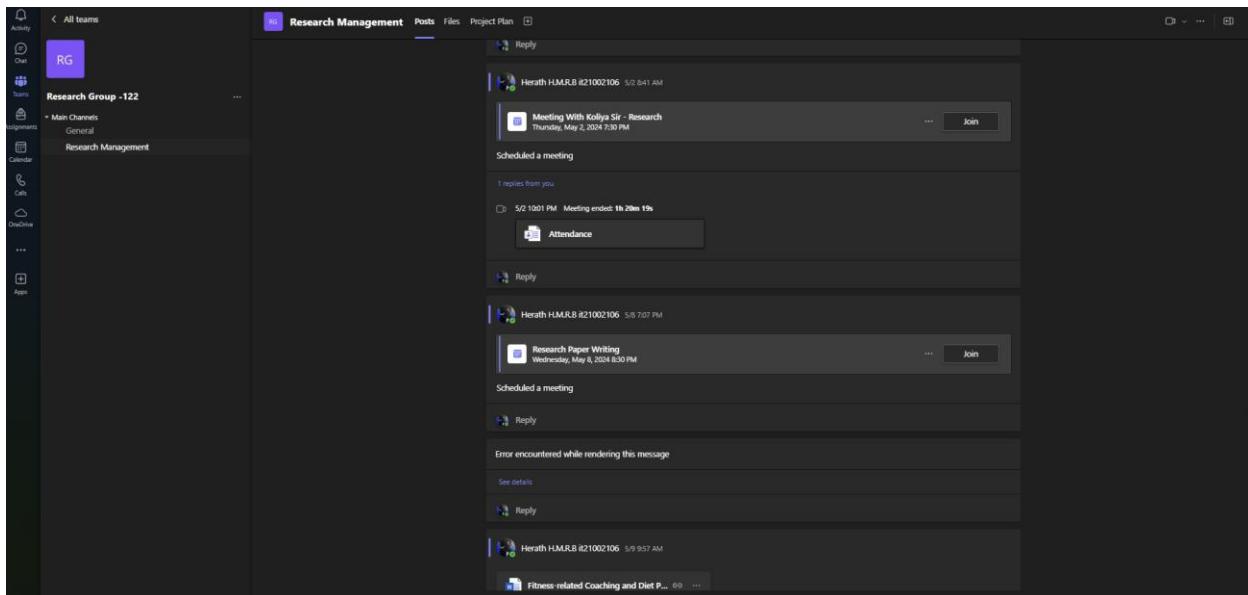
1 like

Herath M.H.S.M it21114144 4/23 9:27 PM  
Thank you rusuru. I'll meet with sir to confirm and then finalize everything.

1 like

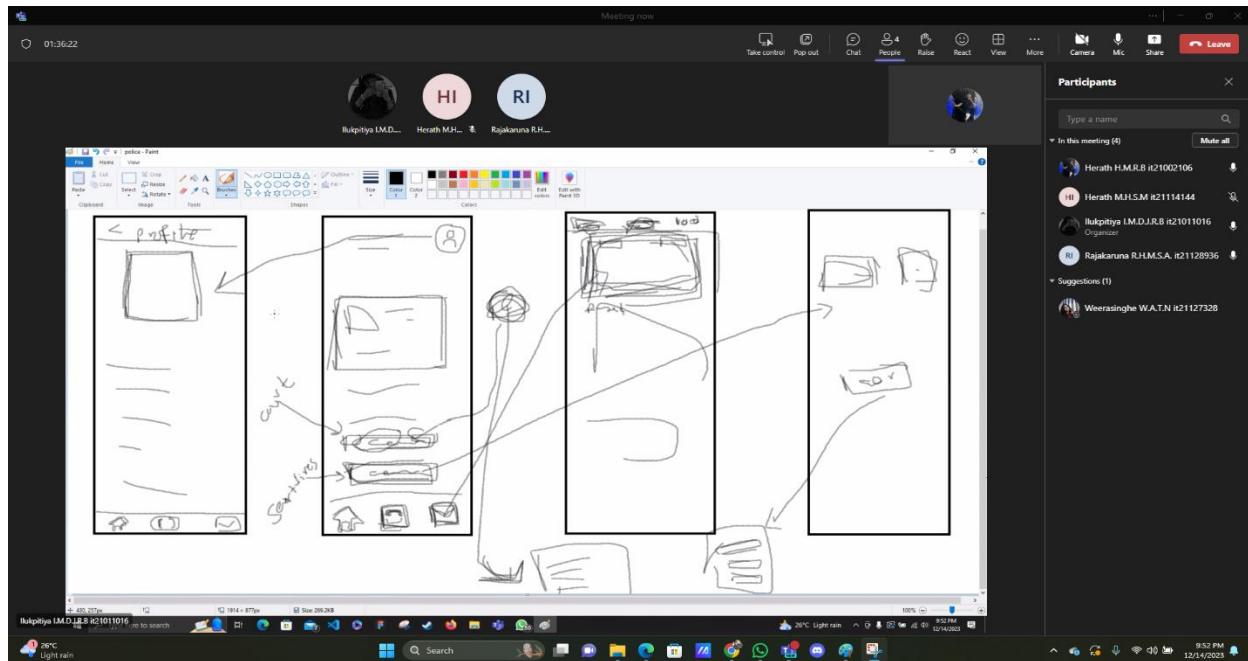
Reply



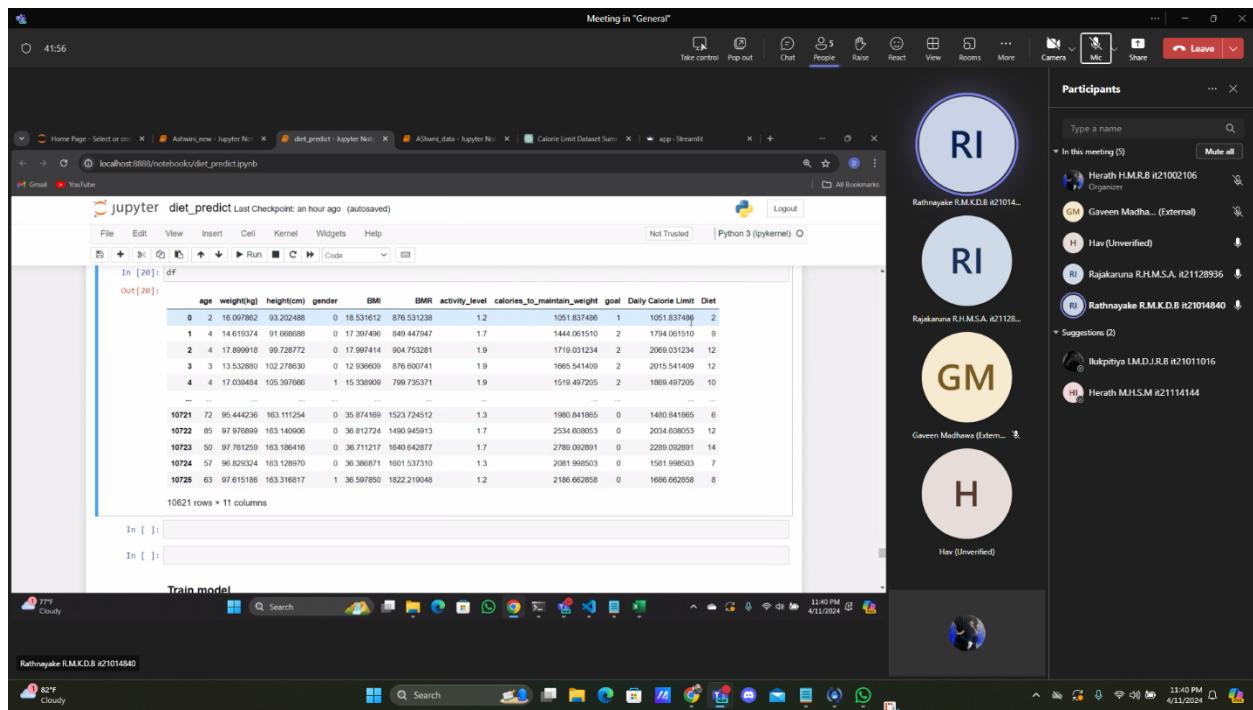


## 14.Screenshots of the calls in MS Teams

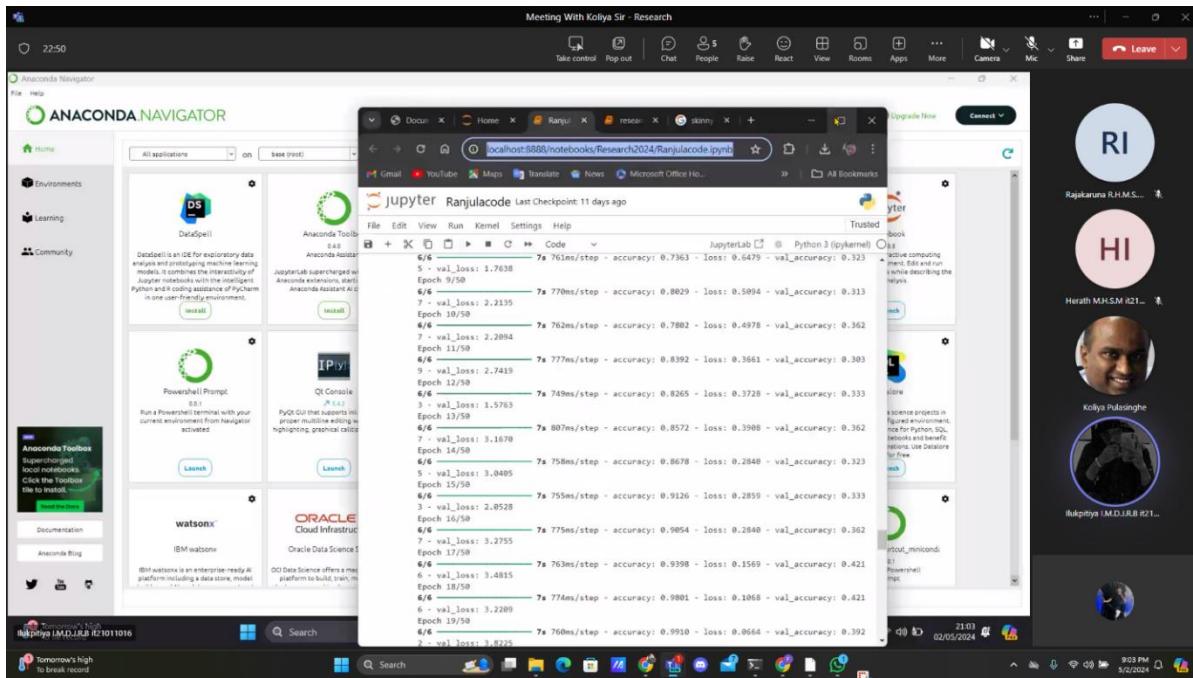
### 14.1 Online Meeting with team members through Microsoft Teams - 14/12/2023



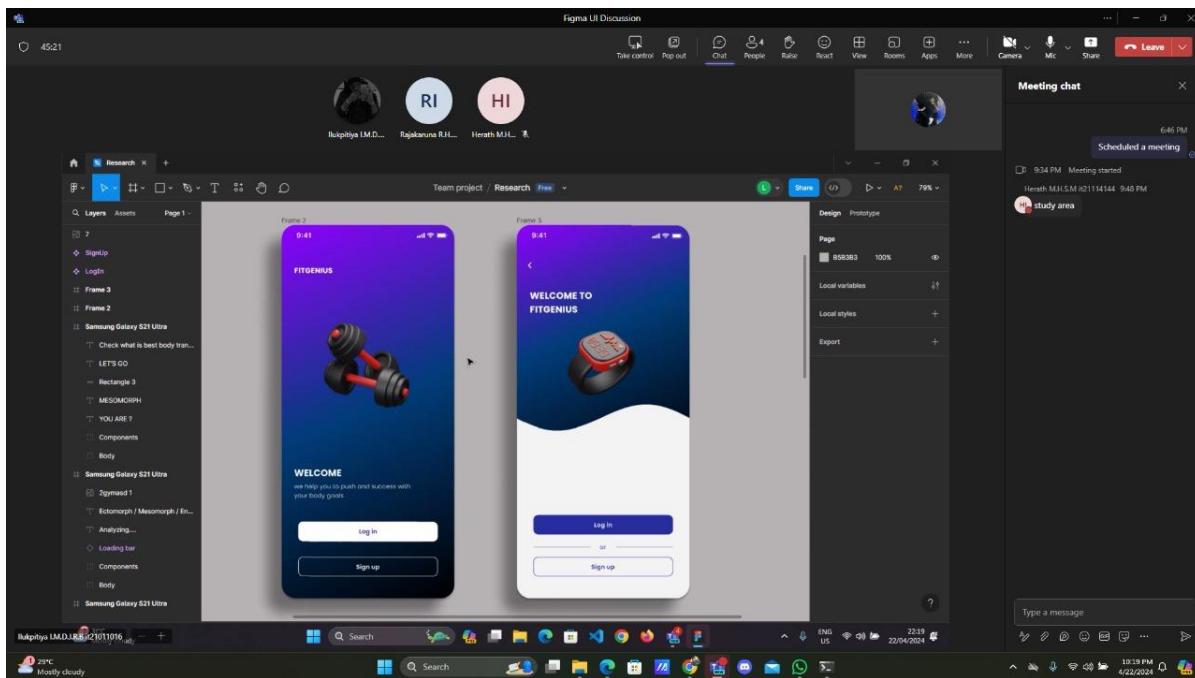
### 14.2 Meeting with a Senior Graduate - 11/04/2024



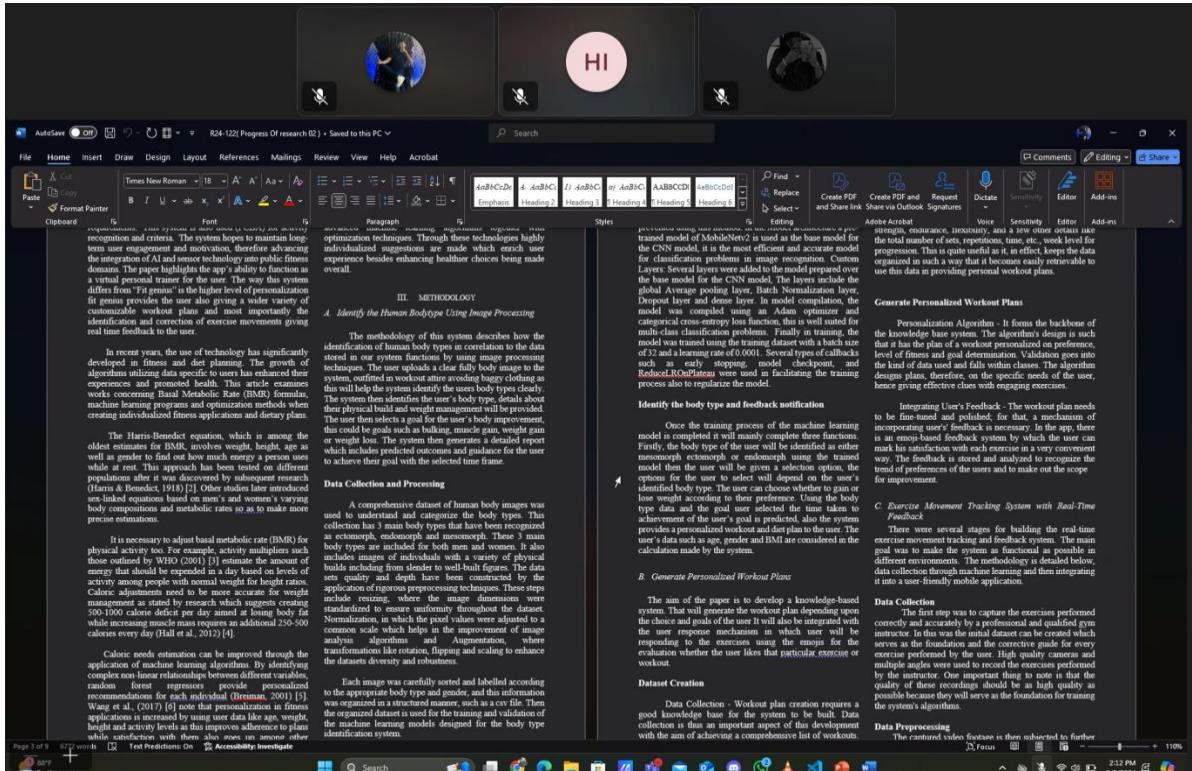
## 14.3 Meeting with the Supervisor - 02/05/2024



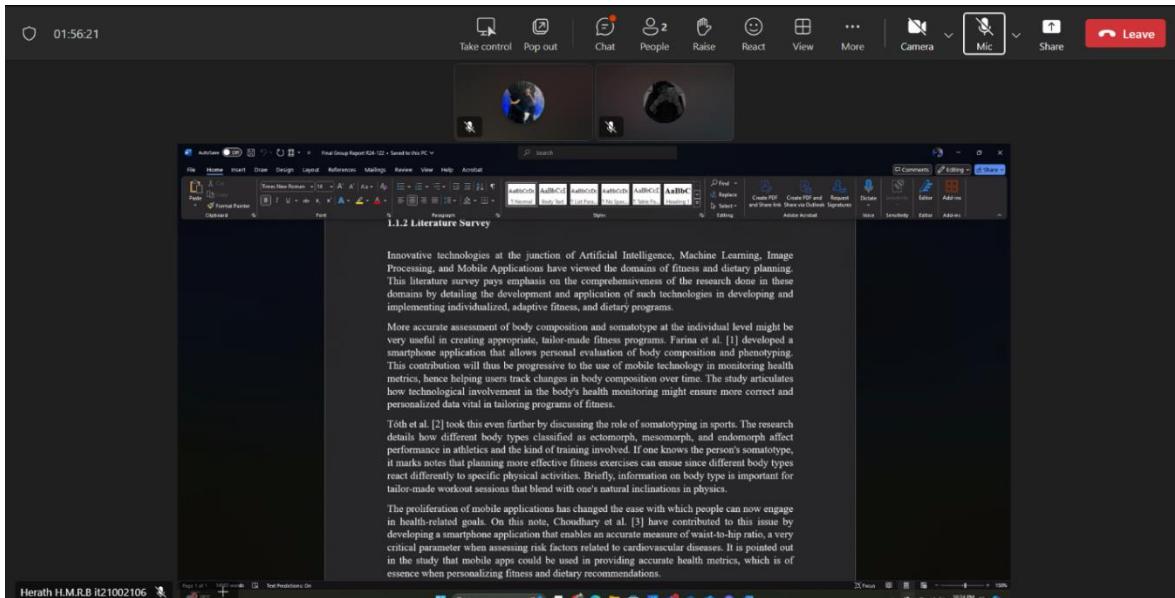
## 14.4 Online Meeting with team members through Microsoft Teams - 22/04/2024



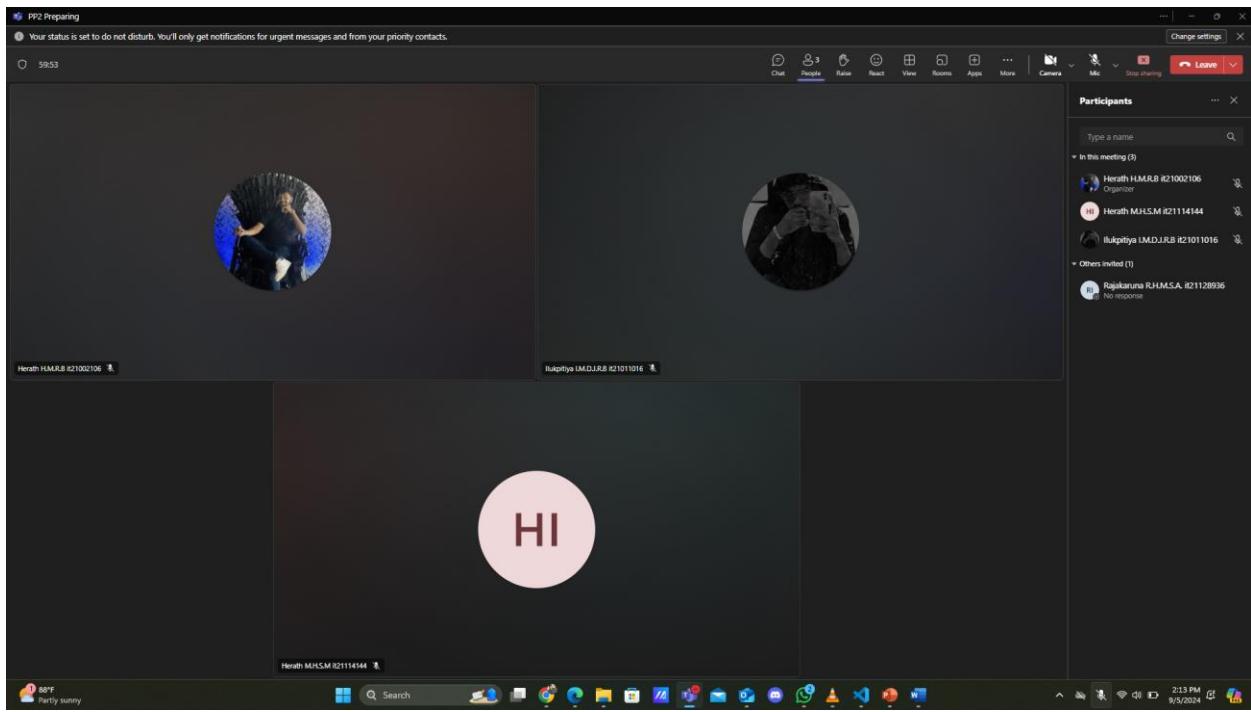
## 14.5 Meeting to write and edit the Research Paper with Group Members



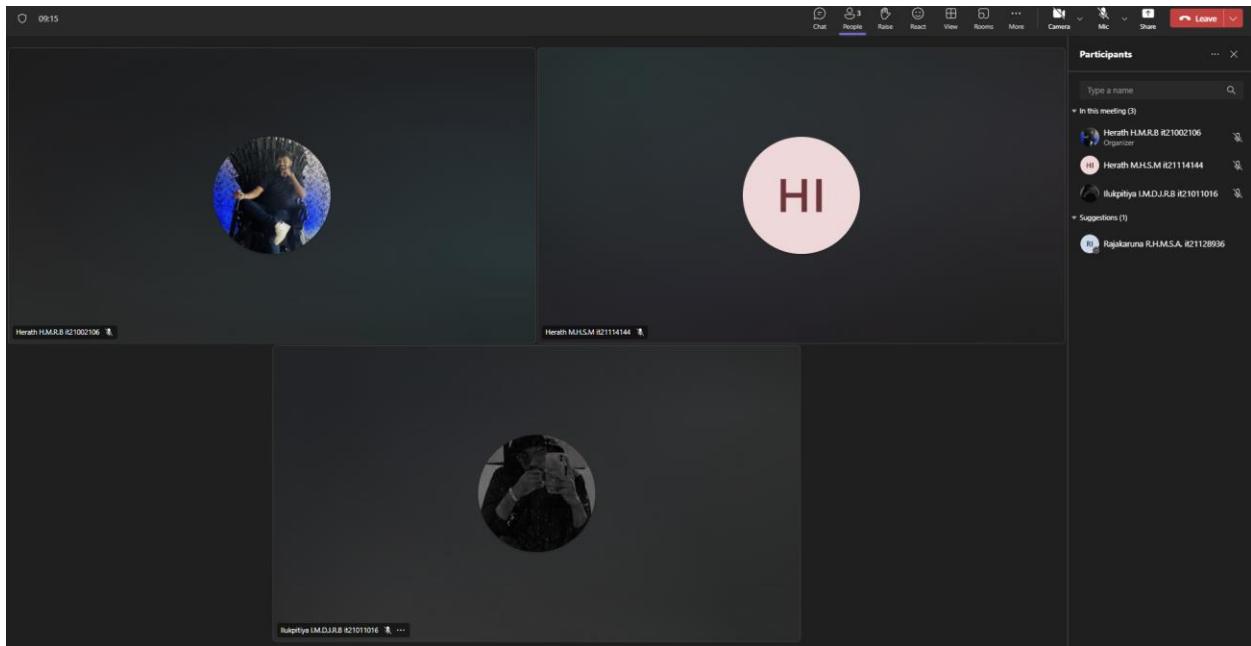
## 14.6 Meeting to write and edit the Research Paper with Group Members – 16.08.2024



#### 14.7 Meeting with the Group Members to prepare PP2



#### 14.8 Meeting with the Group Members to prepare PP2



## 14.9 English proof reading with an External Editor

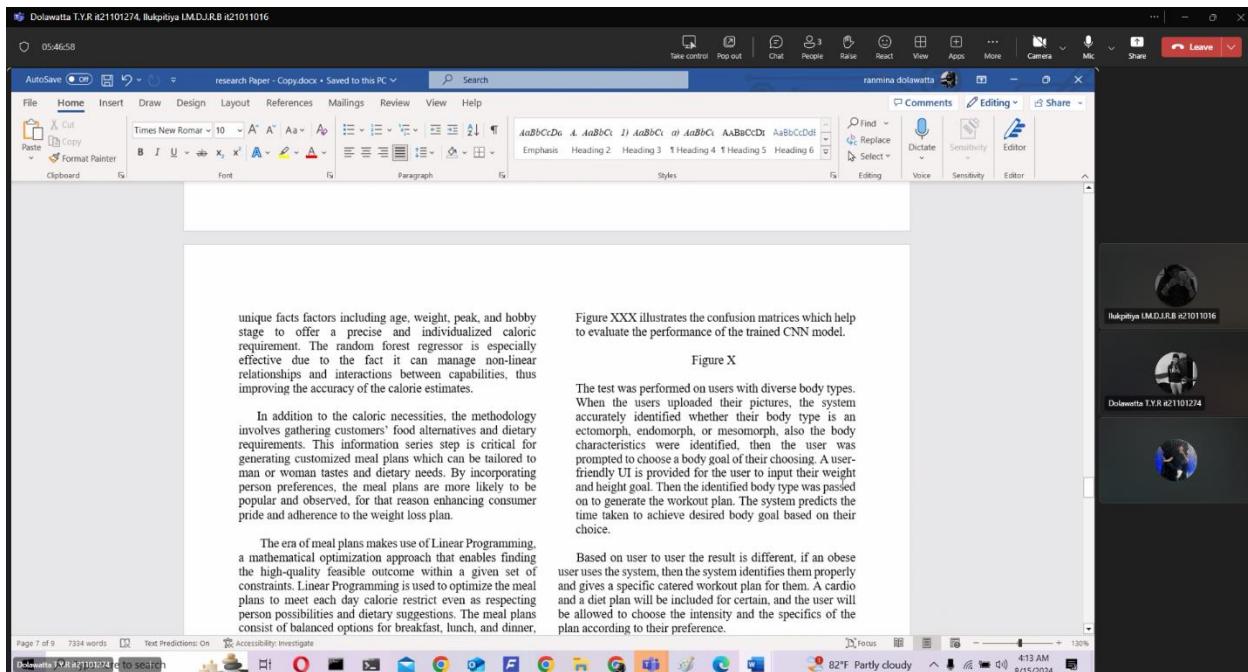


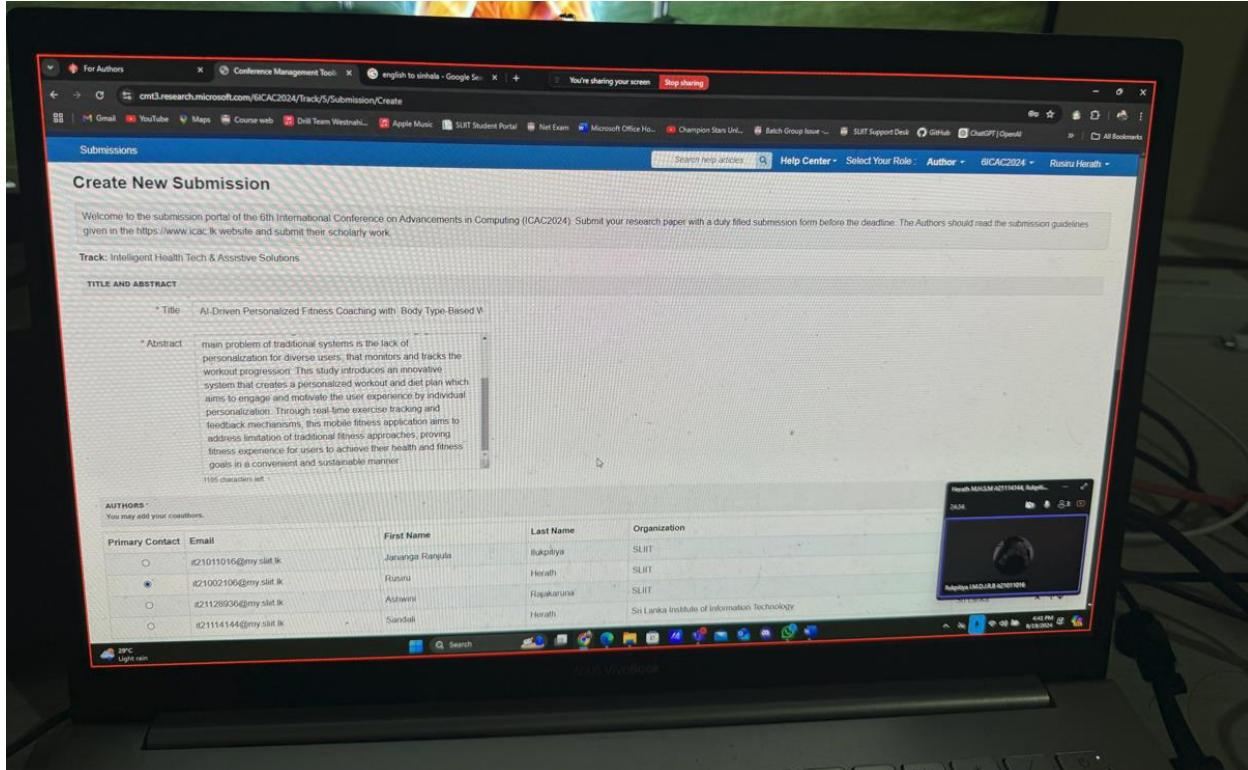
Figure XXX illustrates the confusion matrices which help to evaluate the performance of the trained CNN model.

Figure X

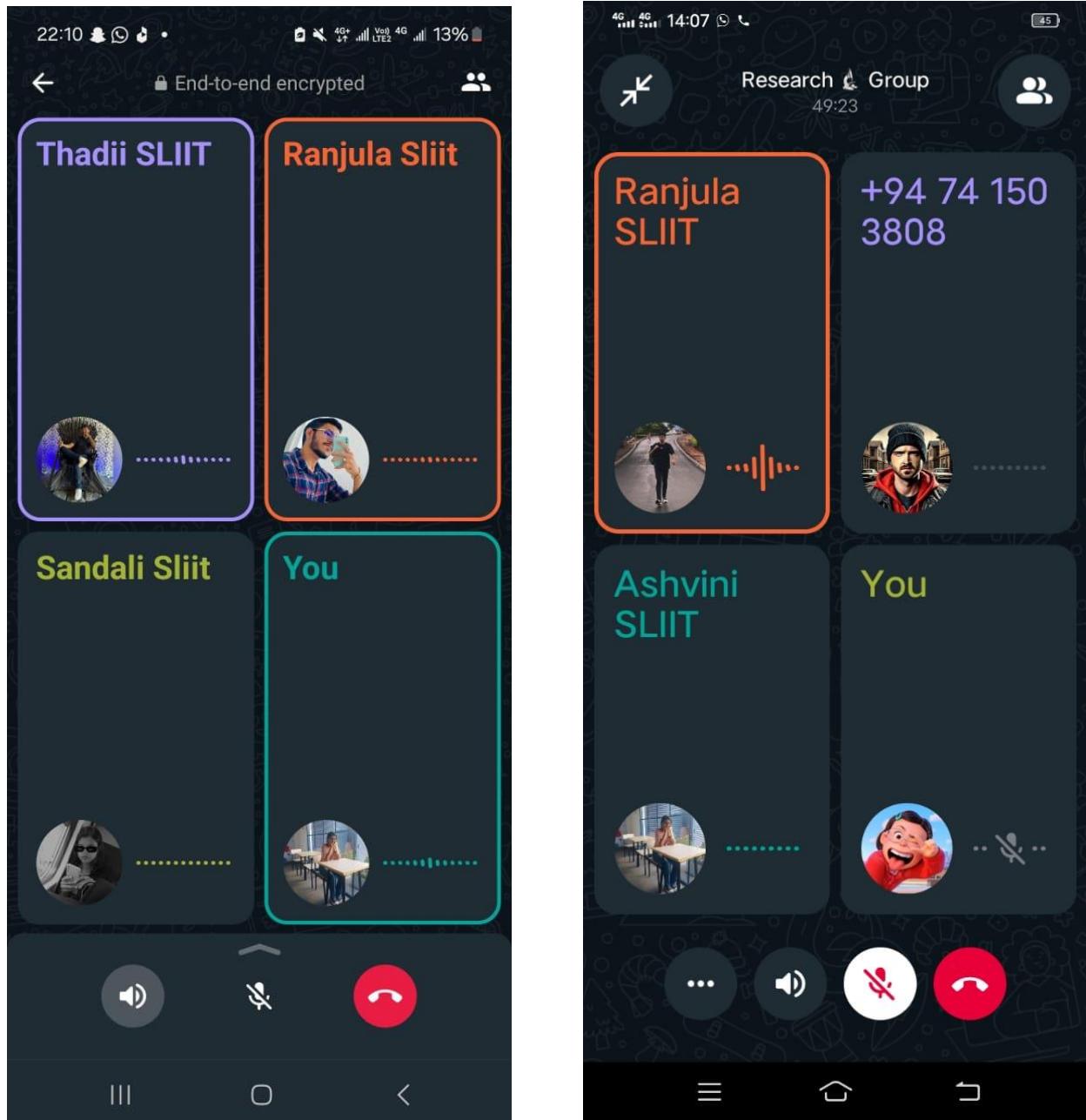
The test was performed on users with diverse body types. When the users uploaded their pictures, the system accurately identified whether their body type is an ectomorph, endomorph, or mesomorph, also the body characteristics were identified, then the user was prompted to choose a body goal of their choosing. A user-friendly UI is provided for the user to input their weight and height goal. Then the identified body type was passed on to generate the workout plan. The system predicts the time taken to achieve desired body goal based on their choice.

Based on user to user the result is different, if an obese user uses the system, then the system identifies them properly and gives a specific catered workout plan for them. A cardio and a diet plan will be included for certain, and the user will be allowed to choose the intensity and the specifics of the plan according to their preference.

## 14.10 Meeting taken prior to the ICAC Research Paper Submission



14.11 WhatsApp Call with Group Members



## **15. Field visit for Data Collection**

### **15.1 Field Visit - Powermax Fitness Center**



## **16. Project Completion Criteria**

**1. Proposal Presentation**

Date: 21st February 2024

**2. Proposal Report**

Date: 29th February 2024

**3. Progress Presentation I**

Date: 6th May 2024

**4. Status Document I**

Date: 6th May 2024

**5. Final Report**

Date: 23rd August 2024

**6. Research Paper**

Date: 31st August 2024

**7. Progress Presentation II**

Date: 9th September 2024

**8. Status Document II**

Date: 11th September 2024

**9. Project Website**

Date: 21st October 2024

**10. Final Presentation & Viva**

Date: 28th October 2024

**11. Research Logbook Submission**

Date: 20th November 2024