EMOTION RECOGNITION AND SENTIMENT ANALYSIS FOR RELATIONSHIP IMPROVEMENT.

TMP-2023-24-133

Status Document - 2

IT20651442 – Dilini H.G.C

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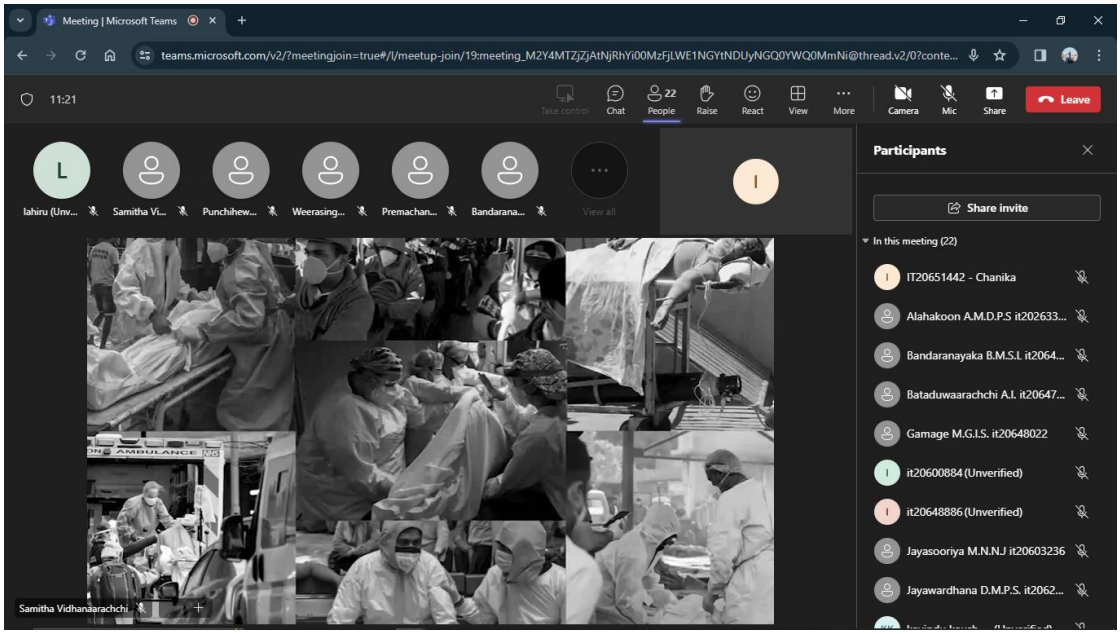
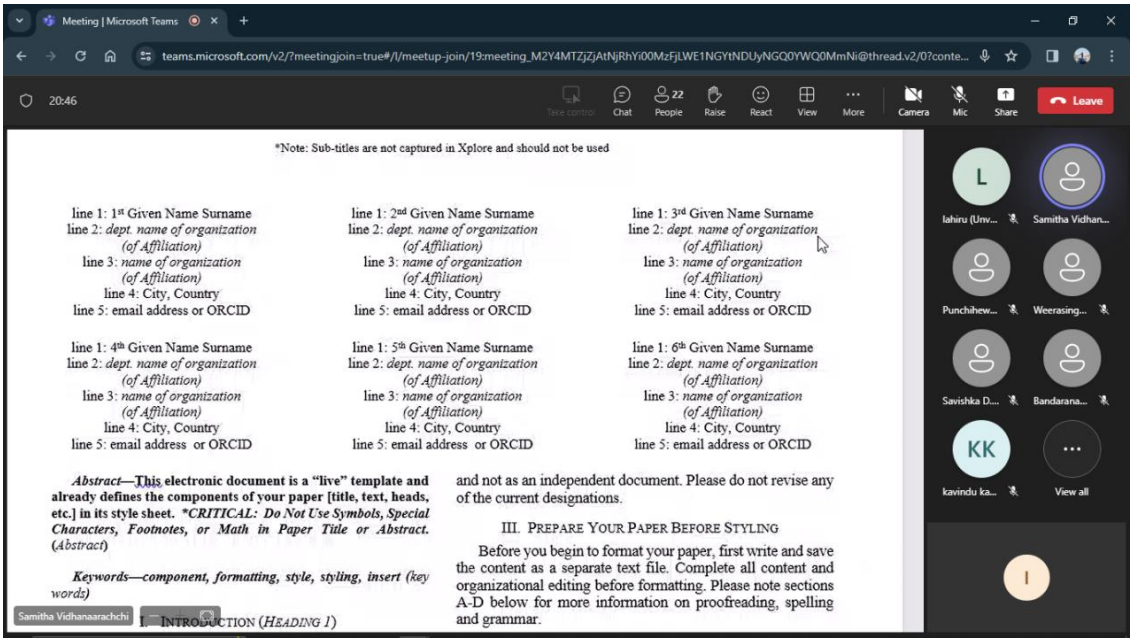
01. Screenshots of the chats and calls in MS Teams





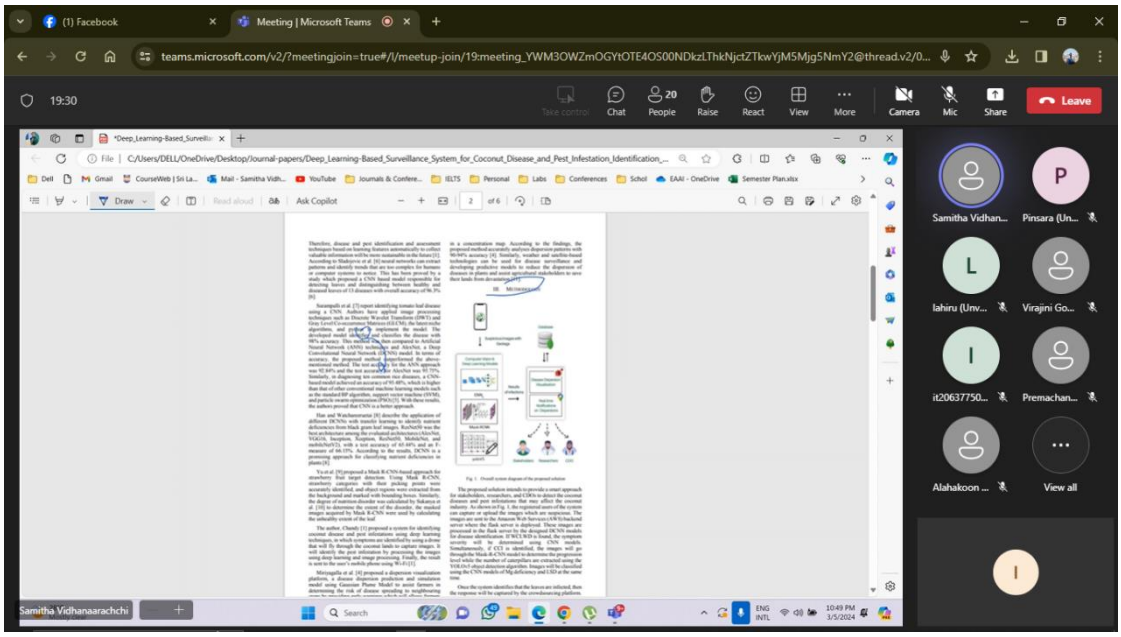


Figure 1.1: Meeting with Co – Supervisor.

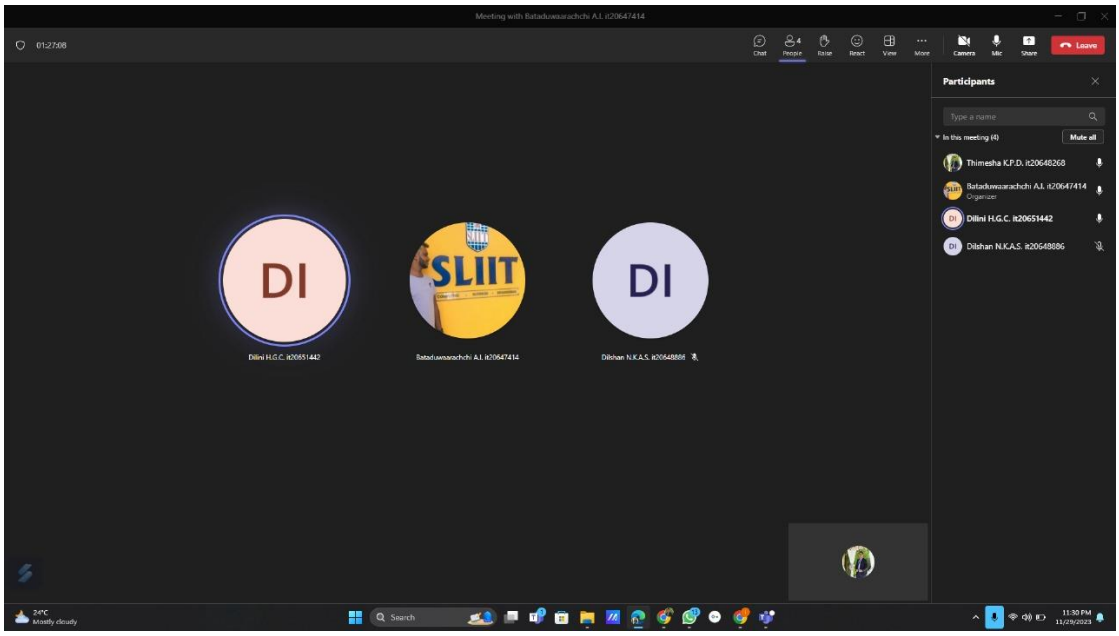


Figure 1.2: Meeting with group members.

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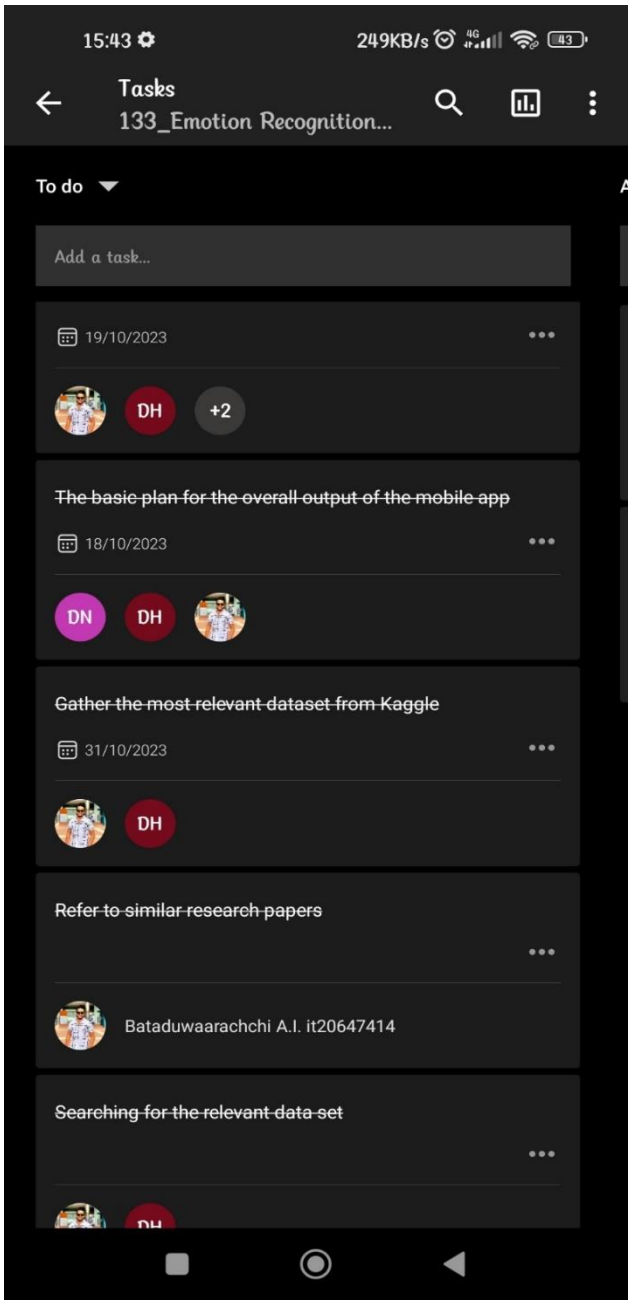
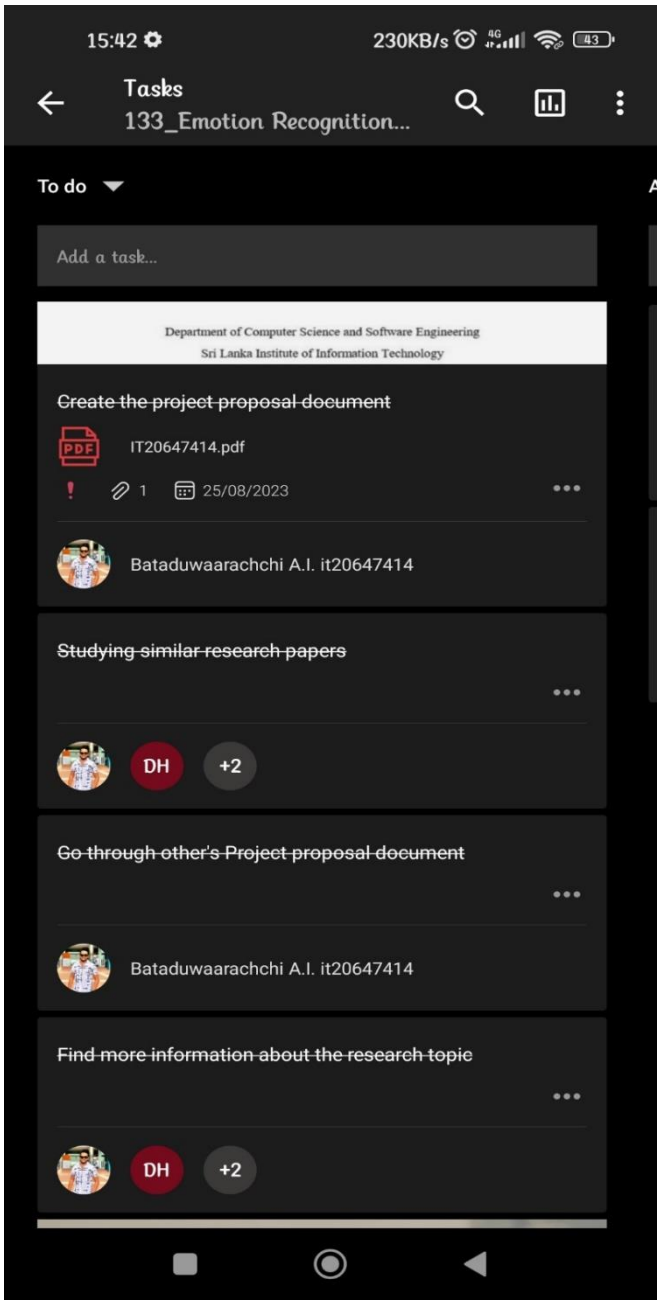
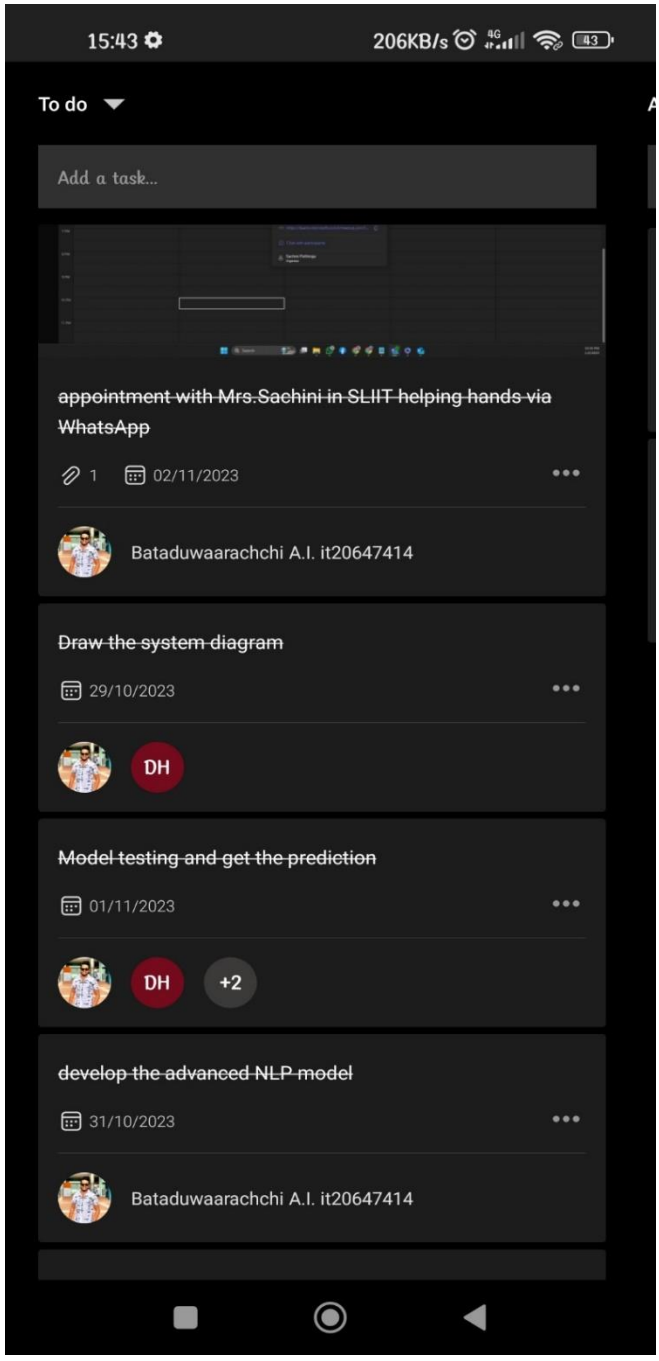
02. Work breakdown structure & allocates resources for each area.



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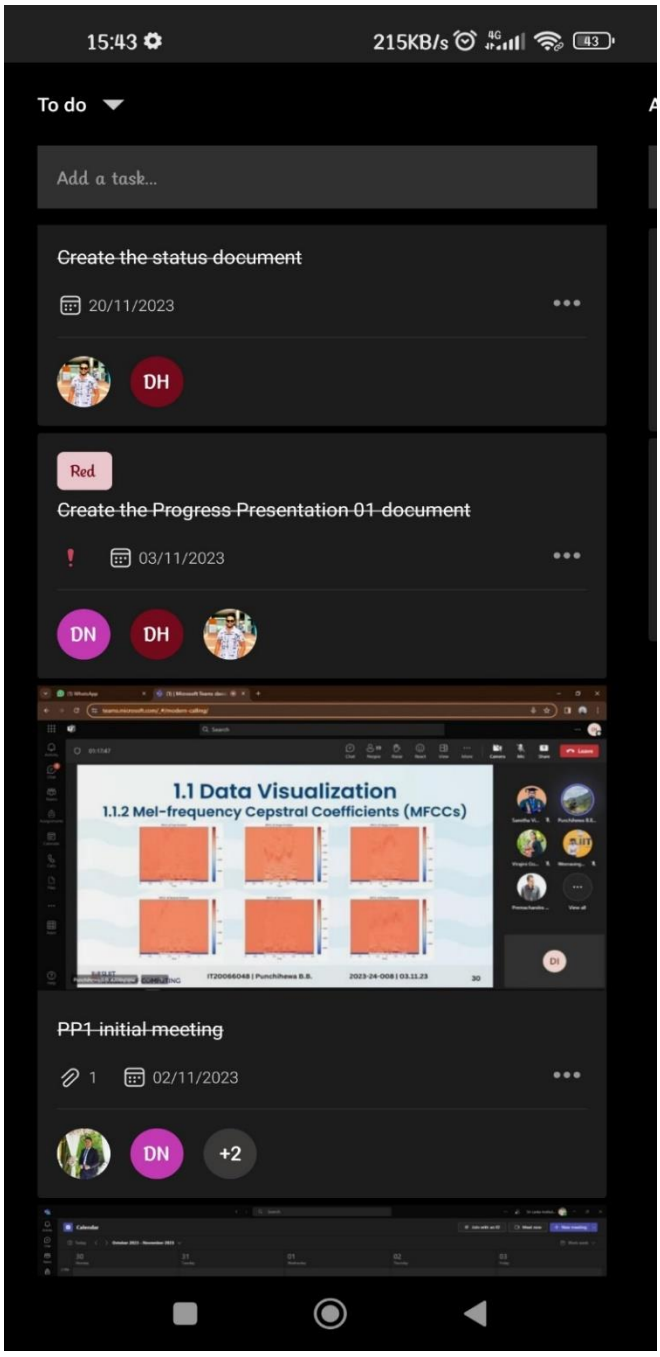
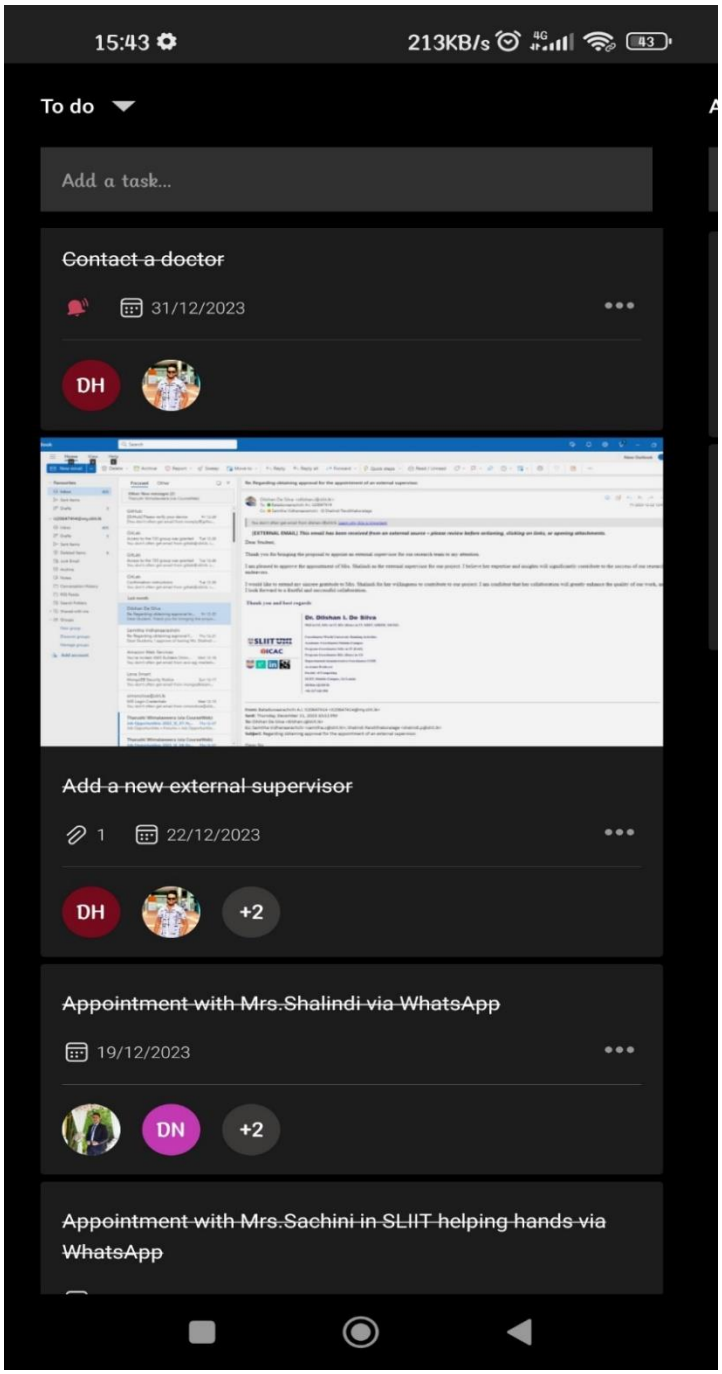
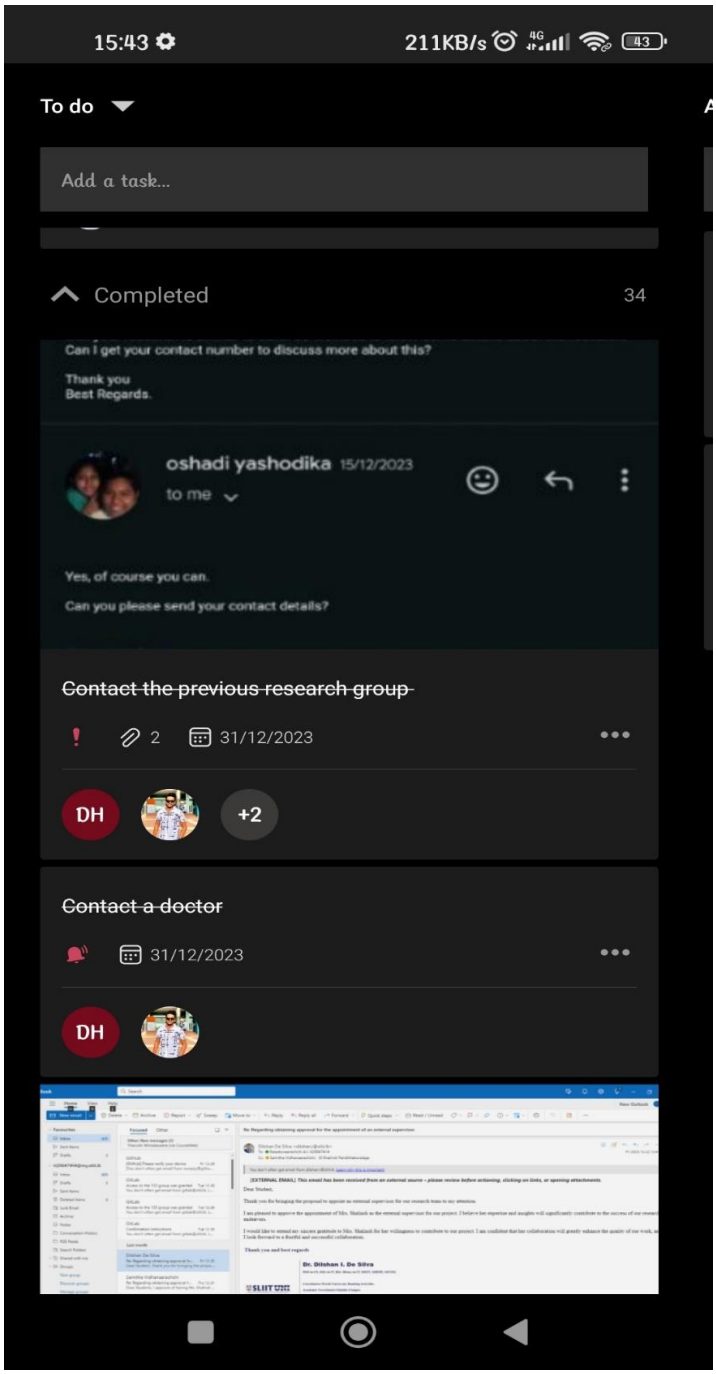
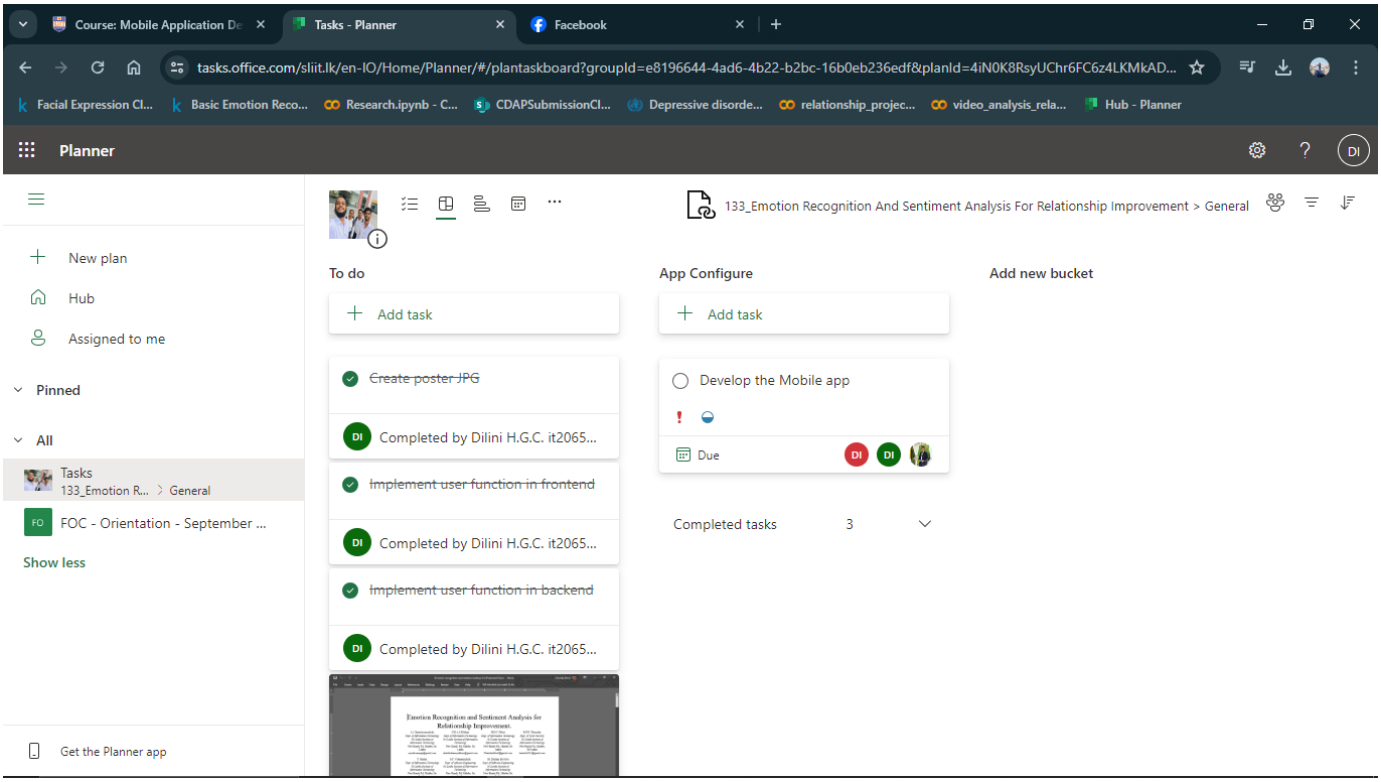
To do
Add a task...
appointment with Mrs.Sachini in SLIIT helping hands via WhatsApp
1
02/11/2023
Bataduwaarachchi A.I. it20647414
Draw the system diagram
29/10/2023
DH
Model testing and get the prediction
01/11/2023
DH
+2
develop the advanced NLP model
31/10/2023
Bataduwaarachchi A.I. it20647414


15:43
215KB/s
To do
Add a task...
Create the status document
20/11/2023
DH
Red
Create the Progress Presentation 01 document
03/11/2023
DN
DH
1.1 Data Visualization
1.1.2 Mel-frequency Cepstral Coefficients (MFCCs)
PP1 initial meeting
1
02/11/2023
DN
+2


15:43
213KB/s
To do
Add a task...
Contact a doctor
31/12/2023
DH
Add a new external supervisor
1
22/12/2023
DH
+2
Appointment with Mrs.Shalindi via WhatsApp
19/12/2023
DN
+2
Appointment with Mrs.Sachini in SLIIT helping hands via WhatsApp


15:43
211KB/s
To do
Add a task...
Completed
34
Can I get your contact number to discuss more about this?
Thank you
Best Regards.
oshadi yashodika 15/12/2023
to me
Yes, of course you can.
Can you please send your contact details?
Contact the previous research group
2
31/12/2023
DH
+2
Contact a doctor
31/12/2023
DH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Facebook
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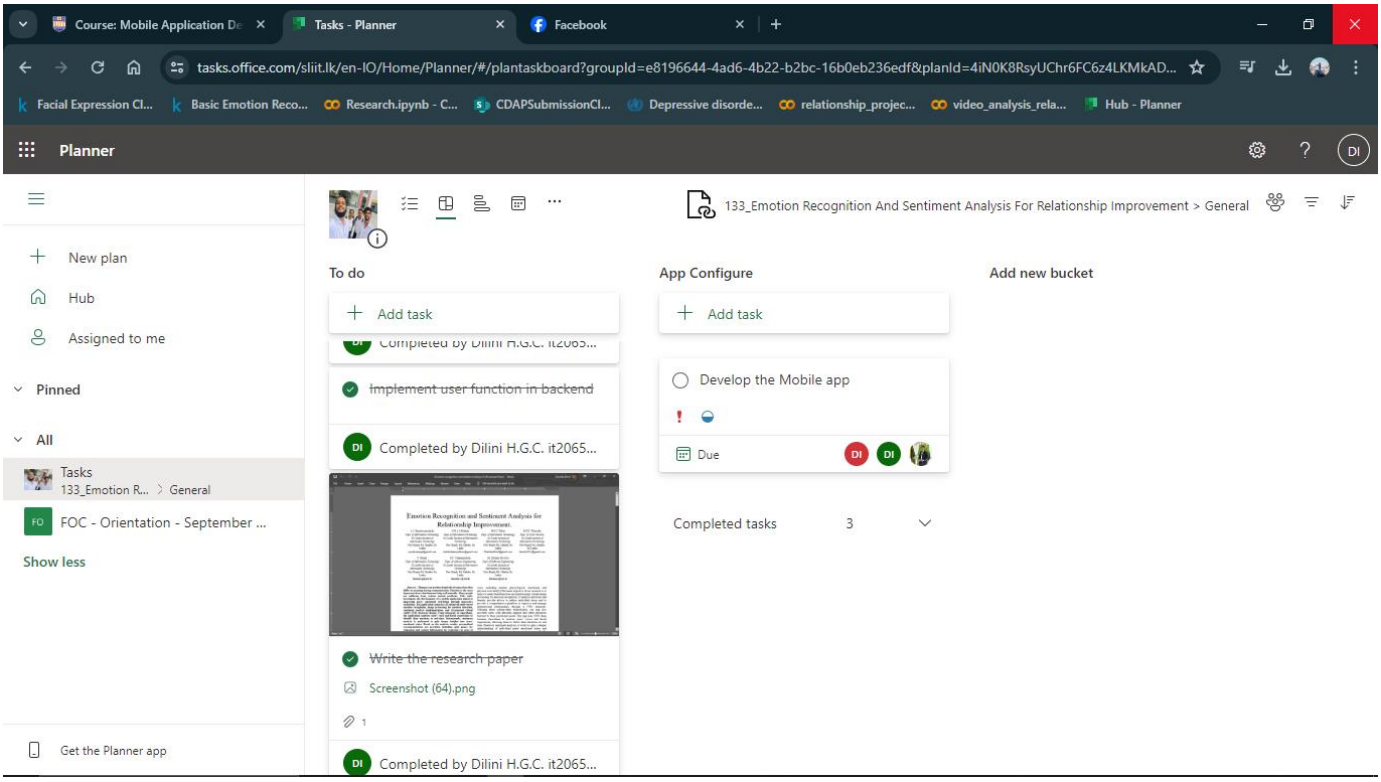
Planner
New plan
Hub
Assigned to me
Pinned
All
Tasks
133_Emotion R... > General
FOC - Orientation - September ...
Show less
Get the Planner app
133_Emotion Recognition And Sentiment Analysis For Relationship Improvement > General
To do
Add task
Create poster JPG
Completed by Dilini H.G.C. it2065...
Implement user function in frontend
Completed by Dilini H.G.C. it2065...
Implement user function in backend
Completed by Dilini H.G.C. it2065...
App Configure
Add task
Develop the Mobile app
Due
Completed tasks 3
Add new bucket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Tasks - Planner
Facebook
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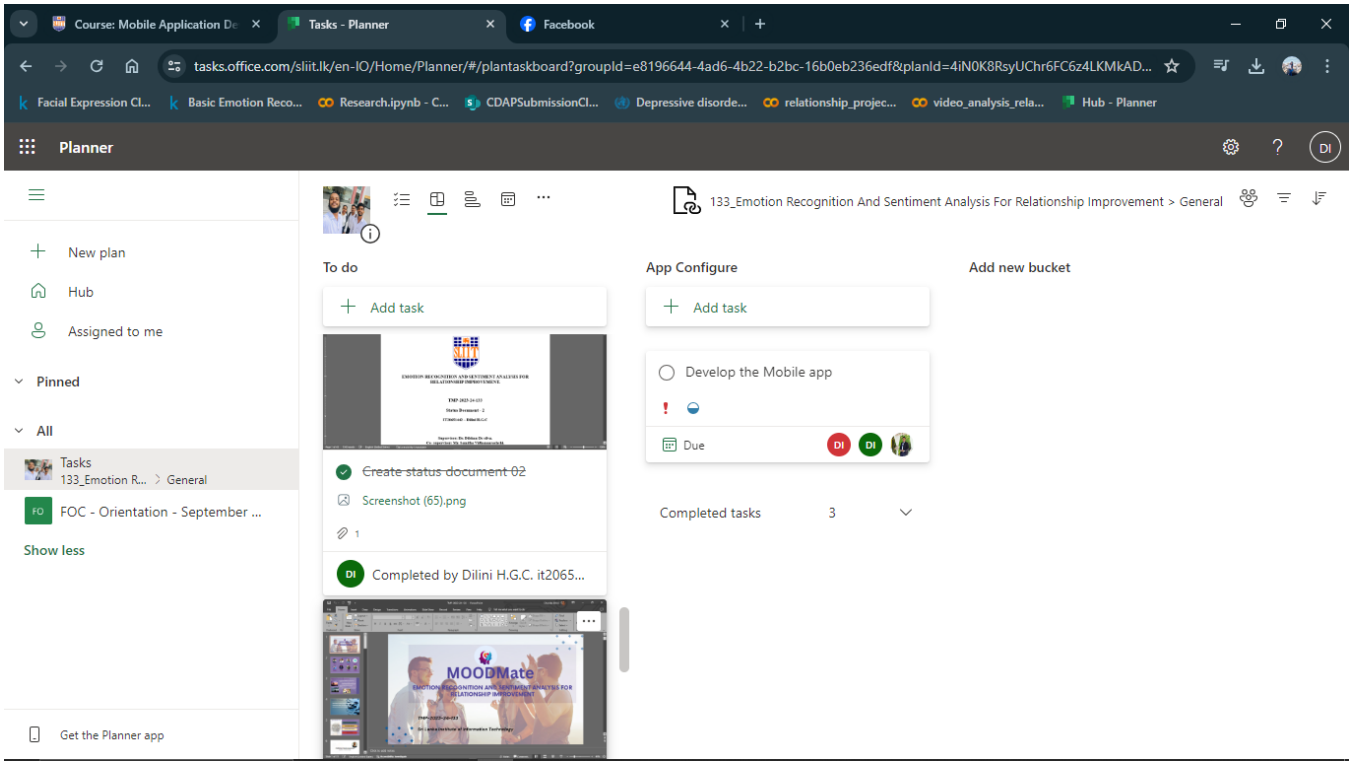
Planner
New plan
Hub
Assigned to me
Pinned
All
Tasks
133_Emotion R... > General
FOC - Orientation - September ...
Show less
Get the Planner app
133_Emotion Recognition And Sentiment Analysis For Relationship Improvement > General
To do
Add task
Implement user function in backend
Completed by Dilini H.G.C. it2065...
Write the research paper
Screenshot (64).png
Completed by Dilini H.G.C. it2065...
App Configure
Add task
Develop the Mobile app
Due
Completed tasks 3
Add new bucket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Tasks - Planner
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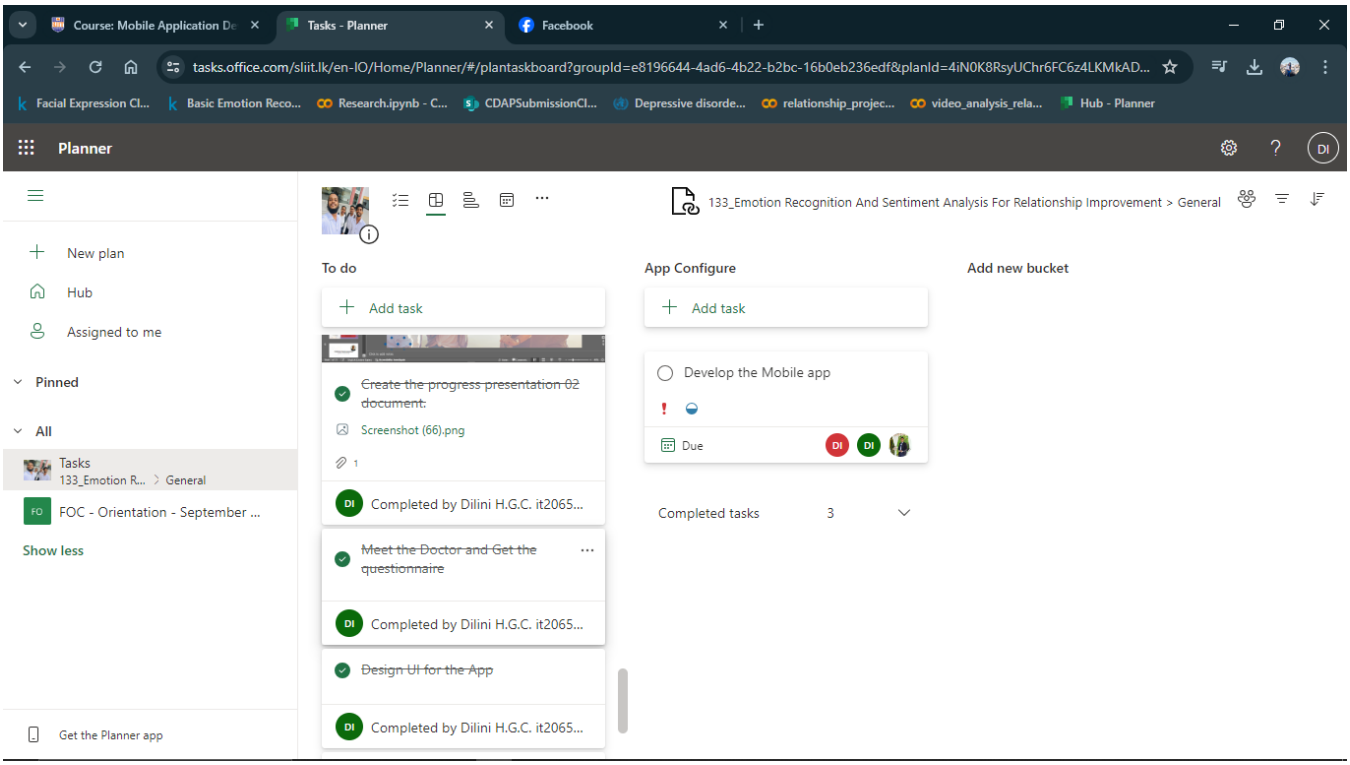
Facial Expression Cl...
Basic Emotion Reco...
Research.ipynb - C...
CDAPSubmissionCl...
Depressive disorde...
relationship_projec...
video_analysis_rela...
Hub - Planner
Planner
New plan
Hub
Assigned to me
Pinned
All
Tasks
133_Emotion R... > General
FOC - Orientation - September ...
Show less
Get the Planner app
133_Emotion Recognition And Sentiment Analysis For Relationship Improvement > General
To do
Add task
Create status document 02
Screenshot (65).png
1
Completed by Dilini H.G.C. it2065...
App Configure
Add task
Develop the Mobile app
Due
Completed tasks
3
Add new bucket
MOODMate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Facebook
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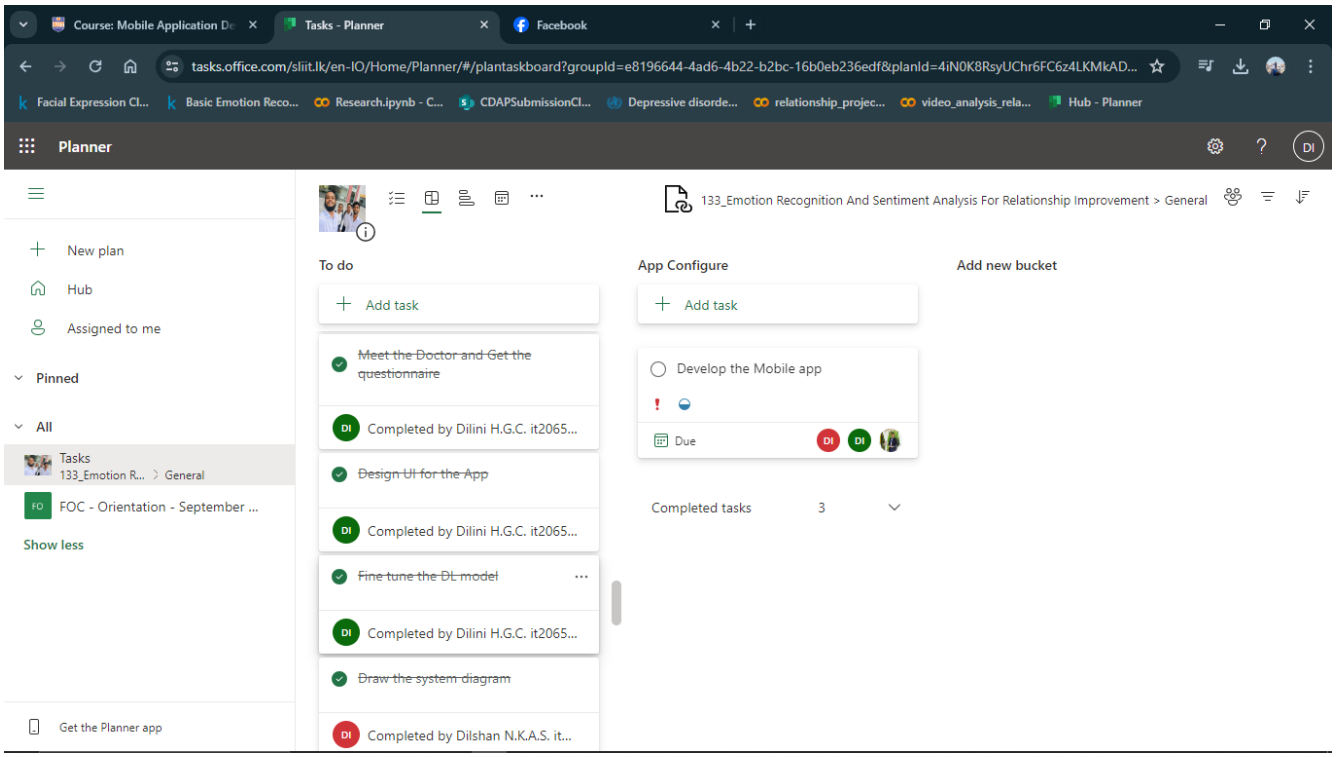
Facial Expression Cl...
Basic Emotion Reco...
Research.ipynb - C...
CDAPSubmissionCl...
Depressive disorde...
relationship_projec...
video_analysis_rela...
Hub - Planner
Planner
New plan
Hub
Assigned to me
Pinned
All
Tasks
133_Emotion R... > General
FOC - Orientation - September ...
Show less
Get the Planner app
133_Emotion Recognition And Sentiment Analysis For Relationship Improvement > General
To do
Add task
Create the progress presentation 02 document.
Screenshot (66).png
1
Completed by Dilini H.G.C. it2065...
Meet the Doctor and Get the questionnaire
Completed by Dilini H.G.C. it2065...
Design UI for the App
Completed by Dilini H.G.C. it2065...
App Configure
Add task
Develop the Mobile app
Due
Completed tasks
3
Add new bucket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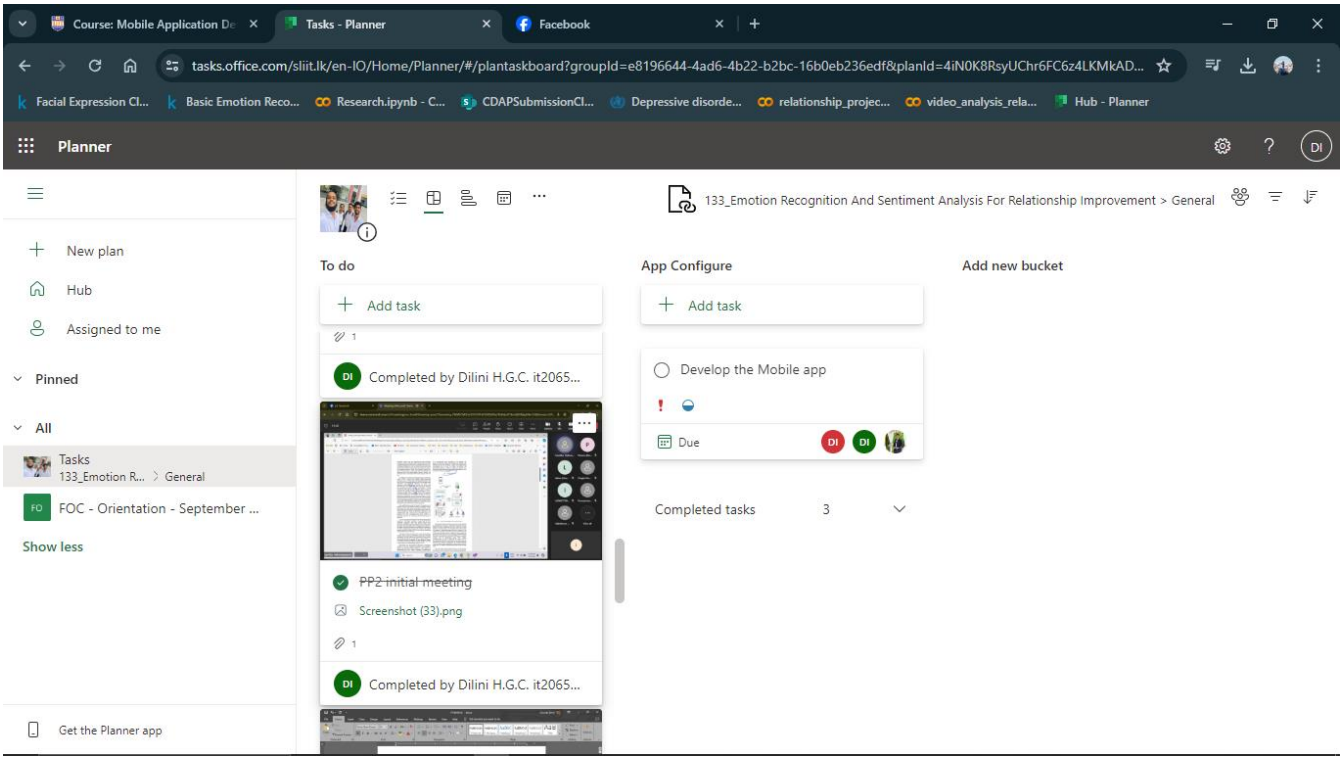
Planner
New plan
Hub
Assigned to me
Pinned
All
Tasks
133_Emotion R... > General
FOC - Orientation - September ...
Show less
Get the Planner app
133_Emotion Recognition And Sentiment Analysis For Relationship Improvement > General
To do
Add task
Meet the Doctor and Get the questionnaire
Completed by Dilini H.G.C. it2065...
Design UI for the App
Completed by Dilini H.G.C. it2065...
Fine tune the DL model
Completed by Dilini H.G.C. it2065...
Draw the system diagram
Completed by Dilshan N.K.A.S. it...
App Configure
Add task
Develop the Mobile app
Due
Completed tasks 3
Add new bucket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Tasks - Planner
Facebook
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Planner
New plan
Hub
Assigned to me
Pinned
All
Tasks
133_Emotion R... > General
FOC - Orientation - September ...
Show less
Get the Planner app
133_Emotion Recognition And Sentiment Analysis For Relationship Improvement > General
To do
Add task
Completed by Dilini H.G.C. it2065...
PP2 initial meeting
Screenshot (33).png
Completed by Dilini H.G.C. it2065...
App Configure
Add task
Develop the Mobile app
Due
Completed tasks 3
Add new bucket

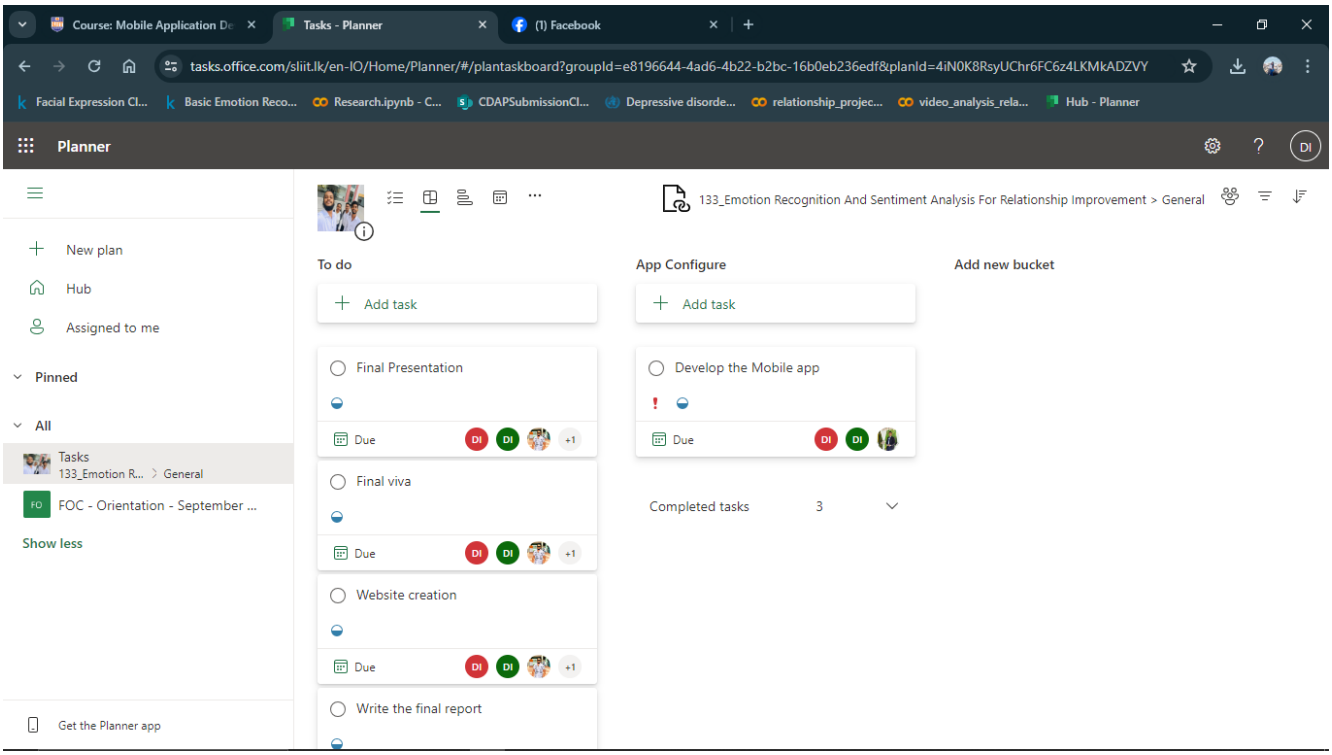

Figure 2.1: Allocated research task and completion

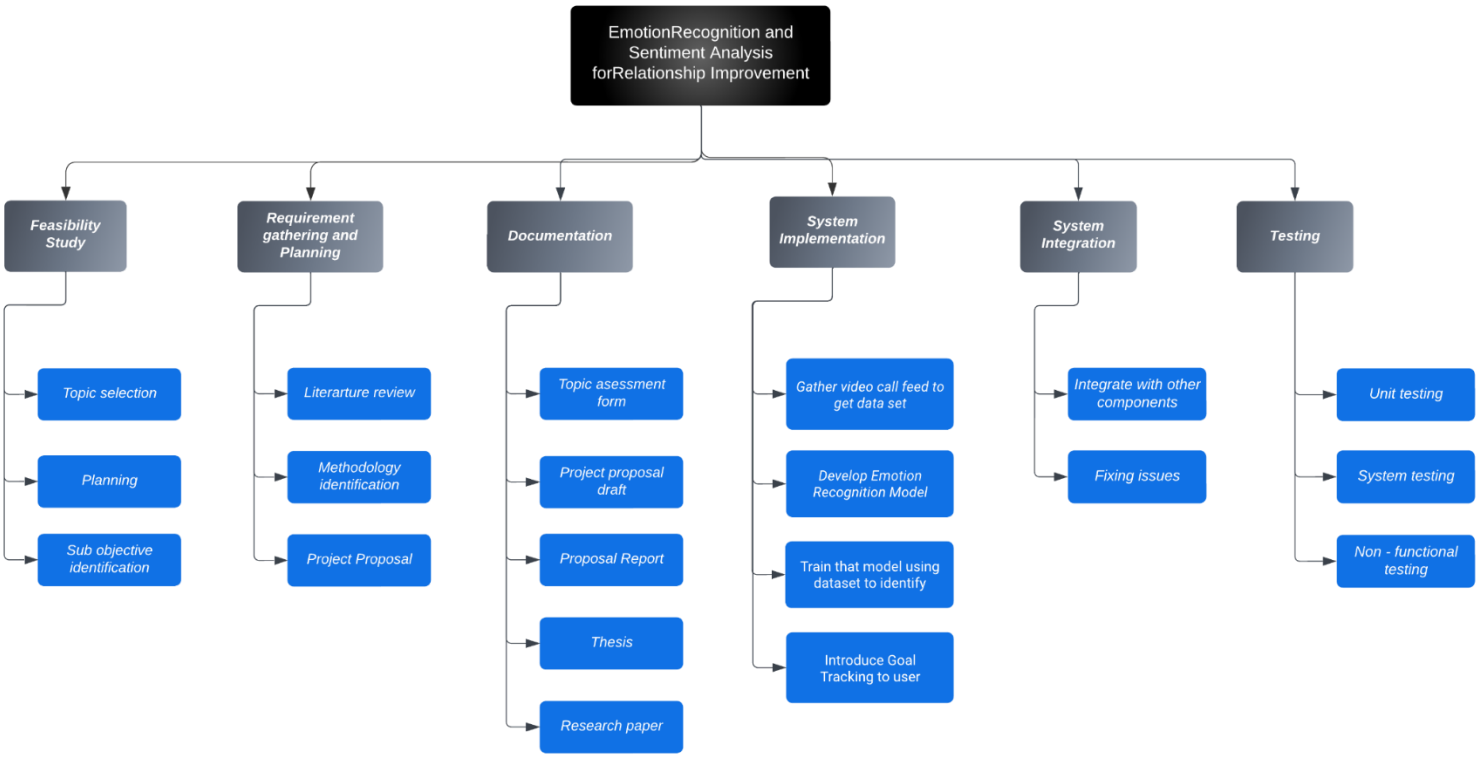

Figure 2.2: WBS and Completion – IT20651442

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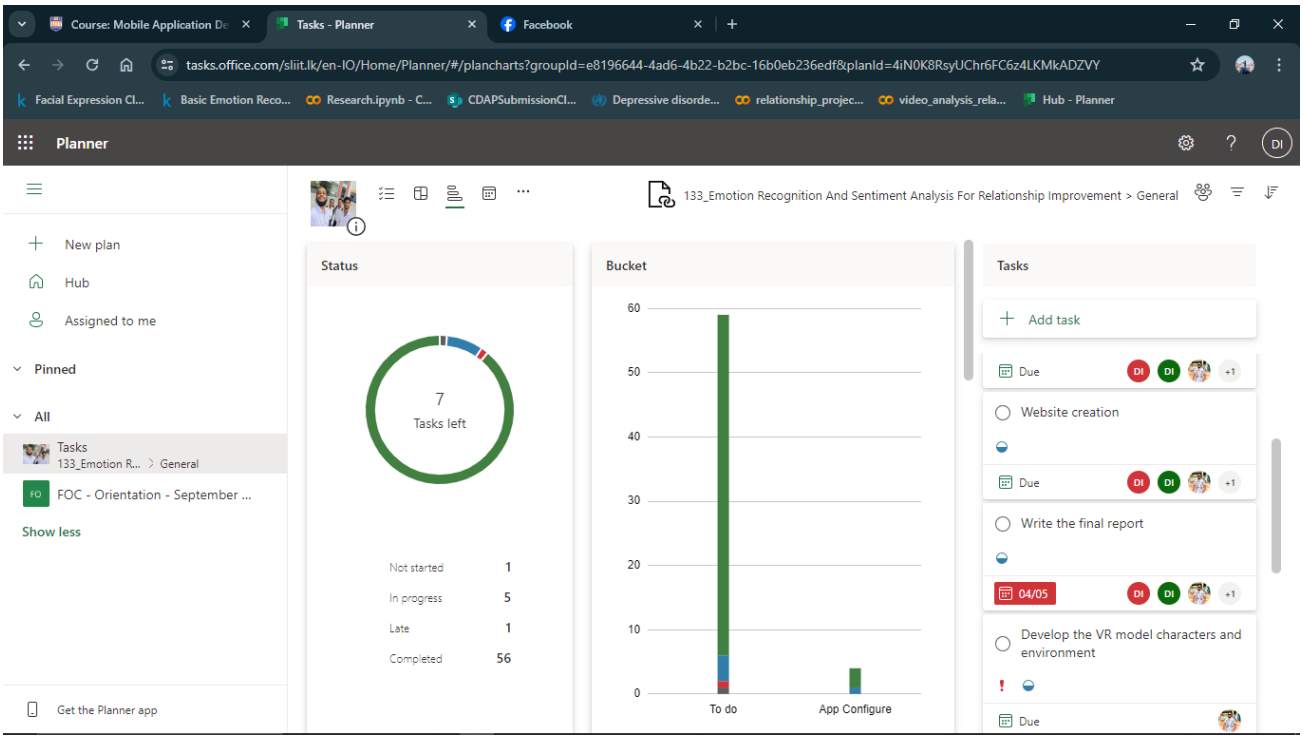
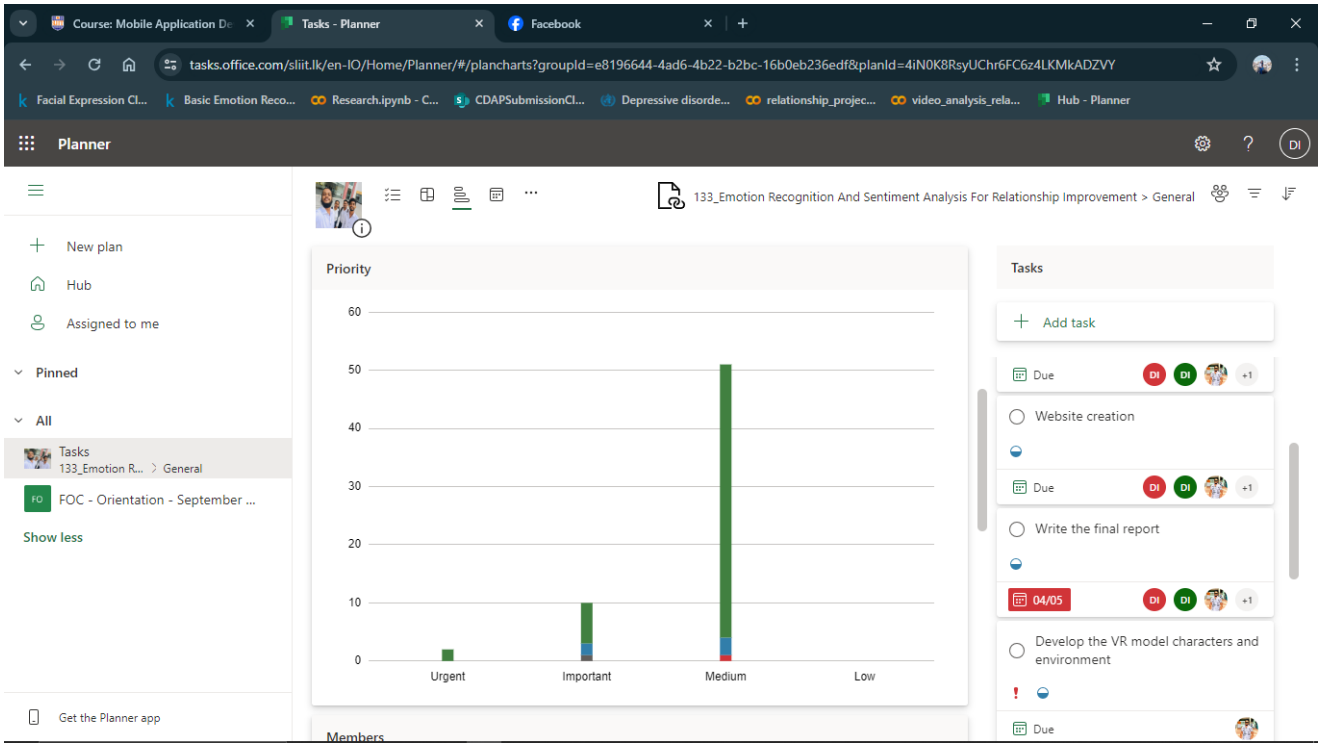
03. Updated Gantt chart of finalize Design & implementation phases

WBS Num	Task Title	%	June	July	August	September	October	November	December	January	February	March	April	May
1. Planning Phase														
1.1	Research Identification	100%												
1.2	Propose Research & Select Supervis	100%												
1.3	Research Background Study	100%												
2. Environment Setup														
2.1	Background Gathering	100%												
2.2	Literature Review	100%												
2.3	Requirment Analysis	100%												
3. Proposal														
3.1	Project Proposal Document	100%												
3.2	Project Proposal Presentation	100%												
4. Software Requirements Specification														
4.1	Identification of the function	100%												
4.2	Final SRS Document	100%												
5. Design														
5.1	Sketch	100%												
5.2	UI Design	100%												
6. Software Design														
6.1	System Implementation	100%												
6.2	Progress Presentation 1	100%												
6.3	Project status Doc	100%												
7. Implementation														
7.1	Data Collection	100%												
7.2	Frontend Development	100%												
7.3	Backend development	100%												
7.4	Integration	100%												
8. Testing														
8.1	Unit Testing	100%												
8.2	Integration Testing	90%												
9. Project Finalization														
9.1	Evaluate all the requirements are im	95%												
9.2	Identify & fix shortcomings	99%												
10. Final Doc & Viva														
10.1	Final document	60%												
10.2	Final Presentation & viva	40%												

Figure 3.1: Planner Gantt Chart

04. Teams Planner Charts.





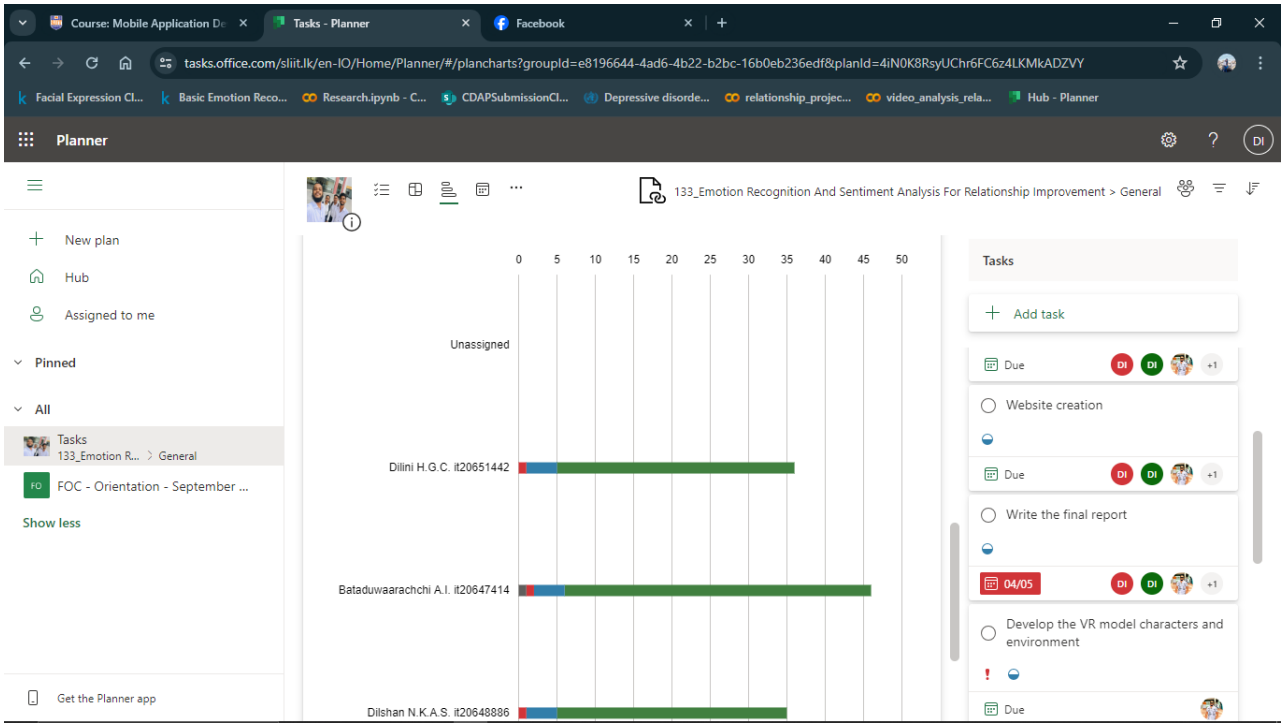
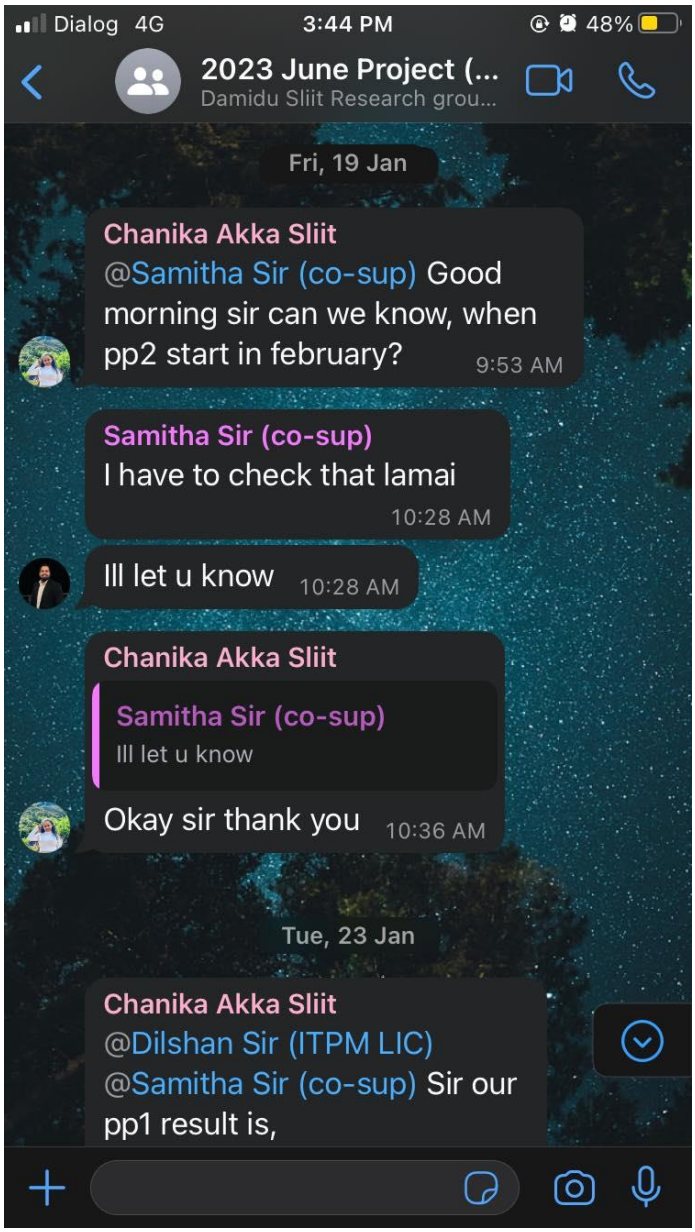
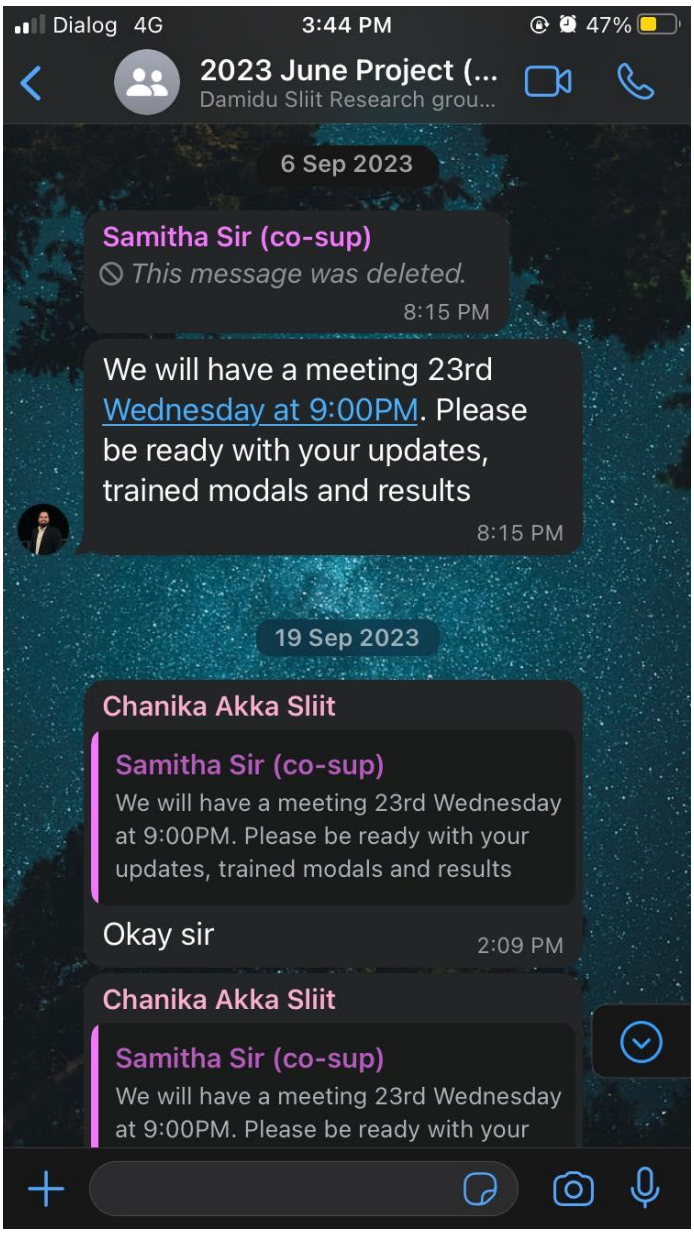


Figure 4.1: Planner chart – IT20651442

05. Screen shots of the WhatsApp Chats.





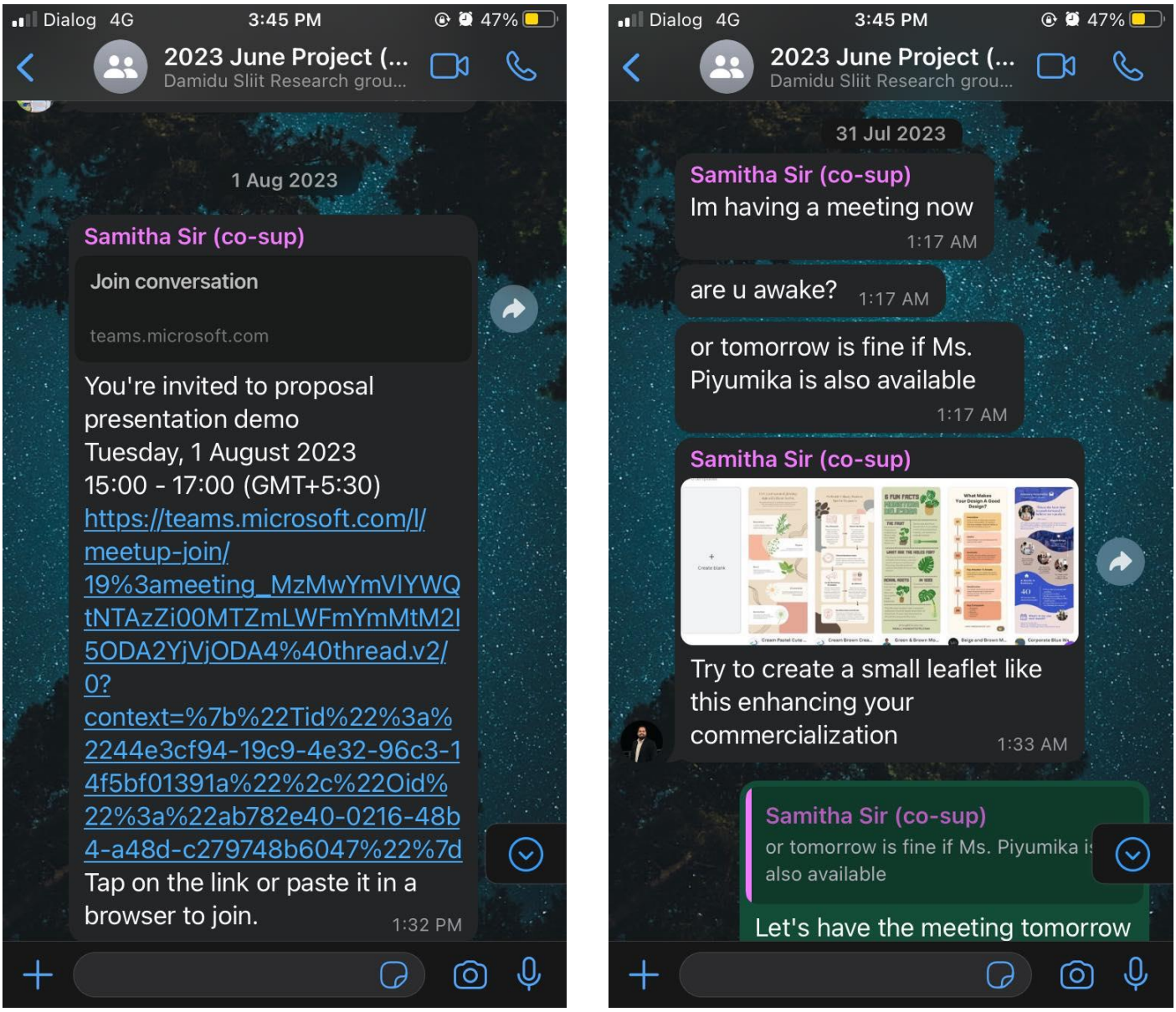


Figure 5.1: Screenshots of the MS WhatsApp

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06. Test Results.

Table 4. 1: Test case to verify whether the captured image is stored Google cloud storage.

Test Case Id	01
Test Case	Verify video upload
Test Scenario	Verify whether the captured video is stored AWS cloud storage
Input	Captured users' small video
Expected Output	The video must be stored in the AWS cloud storage.
Actual Result	The video was stored in the AWS cloud storage.
Status (Pass/Fail)	Pass

Table 4. 2: Test case to classify and select the best model for emotion identifying.

Test Case Id	02
Test Case	Identify emotion using CNN architecture.
Test Scenario	Testing images to identify emotion and select the best model.
Precondition	1273 labeled training & 545 testing images
Input	Test images
Expected Output	High accuracy.
Actual Result	High model accuracy with 99.45%
Status (Pass/Fail)	Pass

Table 8. 3: Select best transfer learning architecture base model for emotion identification.

Test Case Id	03			
Description	1818 images were tested to identify emotions and select the best architecture based on test accuracies.			
Input	1818 images.			
Expected Output	Expected 90% higher accuracy			
Result	Architecture	Accuracy	Correct image count	Wrong image count
	ResNet50	99.45%	1273	545
	VGG16	69.21%	865	345
	VGG19	58.01%	990	276

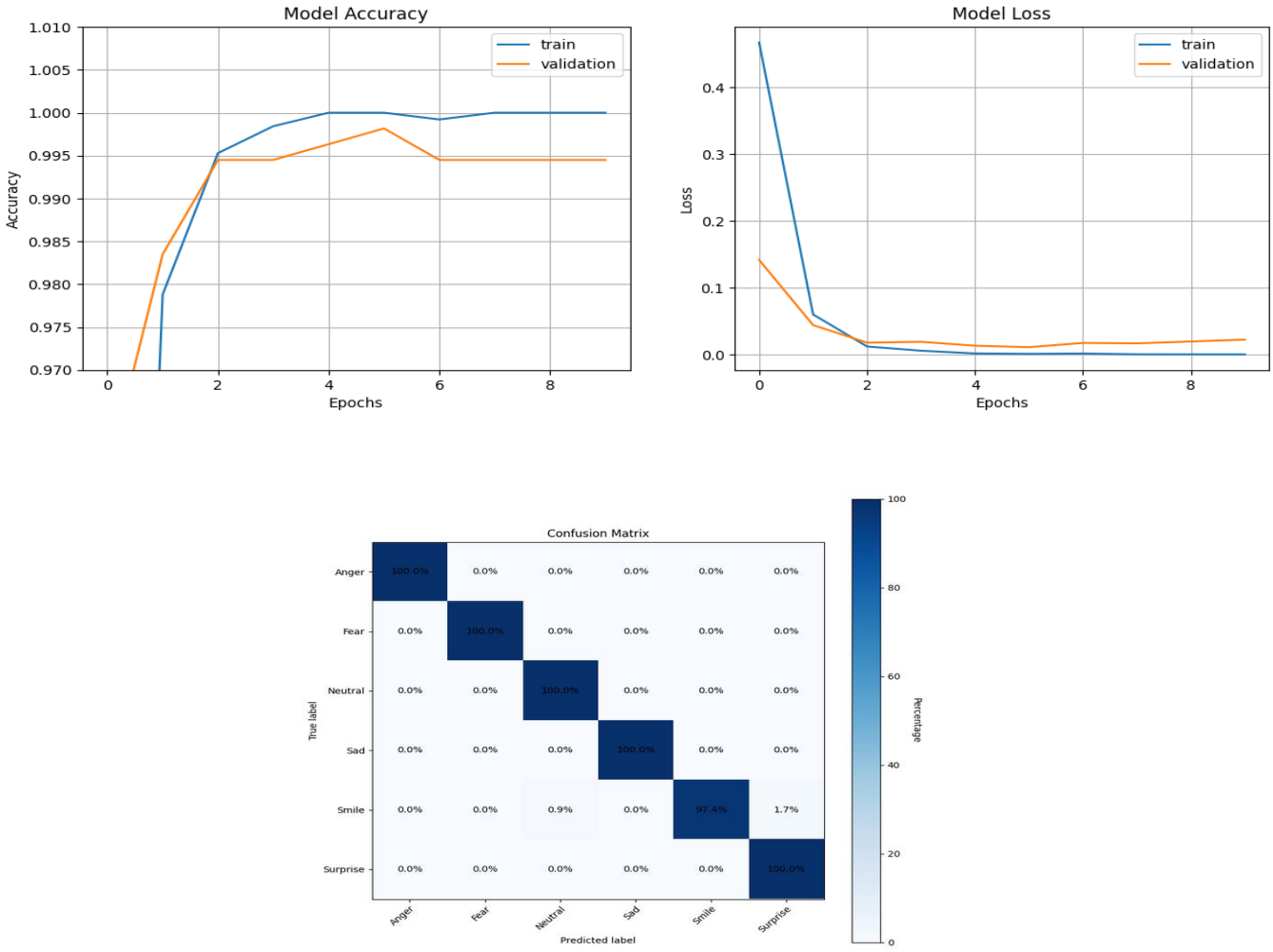

Figure 6. 1: Emotion Identification (Best Architecture Resnet50)