



# THE FUTURE OF CRIME PREVENTION: POLICE CASE ANALYSIS USING MACHINE LEARNING.

(Analyze and Classify Similar Case Documents  
and Predict Category)

**Project Id:**

**2023-224**

Logbook

**Traveena.C- IT20001452**

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October 2023

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## 1. Summary of Daily Group Meetings

Date	Time	Platform	Traveena.C	Discussions	Conclusions
2022-11-15	4:30 PM	MS Teams	Present	Diverse ideas were generated and discussed in Brainstorming workshop.	Gained knowledge regarding the research.
2022-11-16	8:00 PM	MS Teams	Present	Component separation, supervisor selection	Chosen topic 1 as the priority idea Started working on component separation
2022-11-22	1:00 PM	MS Teams	Absent	Complete the supervisory record. Forward a mail to the supervisor. prompt and informative in regards to Journal task distribution	
2022-11-23	10:30 AM	MS Teams	Present	Notifying beforehand of attendance. Time of meeting.	
2022-11-29	10:00 AM	MS Teams	Present	Determine distinctive research elements Assign sections.	Decided to research about each sections.
2022-12-01	10:30 AM	MS Teams	Present	Research component search progress Supervisor issue	Decided to mail the Supervisor for a meet this week.
2022-12-02	10:30 AM	MS Teams	Absent	New division of components. Assignment of components. Classes System Diagram. Time allotted for submitting the title submission form	Decided to send a mail to supervisor requesting a meeting.
2022-12-02	5:00 PM	MS Teams	Absent	Mail sent Tasks identified	
2022-12-05	10:30 AM	MS Teams	Present	Tasks identified Supervisor status. Form submissions	Decided to send the supervisor a follow-up email regarding topic selection, co-supervisor, and supervision. Decided to start holding meetings on a regular basis.

2022-12-06	10:30 AM	MS Teams	Present	Supervisor issue Dataset issue Sending a third mail	Decided to finalize supervisor.
2022-12-06	9:00 PM	MS Teams	Present	Data and Topic issue Send mail to Hansika and Sanji miss	Sent mails to supervisors.
2022-12-10	10:30 AM	MS Teams	Present	Updates on mails Data science technologies	
2022-12-11	9:00 PM	MS Teams	Present	Choice of Topic Choosing a co-supervisor Ingredients Interactions with the supervisor (eg:- teams)	Find additional components that are pertinent to this topic idea. Find a more creative concept.
2022-12-12	10:30 AM	MS Teams	Present	New idea formation. Additional resources for the initial concept	Opted to forward new idea documents to the supervisor.
2022-12-12	10:30 AM	MS Teams	Present	Adding new components to the new idea.	Sent a request to Hansi Madam.
2022-12-12	8:00 PM	MS Teams	Present	Setting up a new meeting with the supervisor.	Wait for co-supervisormeeting
2022-12-13	8:00 PM	MS Teams	Present	Novel/new concepts Viability of the concepts Questions to put to supervisor/co-supervisor.	Opted to request a timetable from the co-supervisor/supervisor.
2022-12-14	10:30 AM	MS Teams	Present	What to talk about with supervisor/co-supervisor Any new ideas	Go with the second idea
2022-12-14	8:00 PM	MS Teams	Present	Determine subjects Name of product.	
2022-12-16	10:00 AM	Google form	Present	Group Registration	
2023-01-10	10:30AM	MS Teams	Present	Forming topic Submitting the topic	
2023-01-13	8:00 PM	MS Teams	Present	Review of the literature review aspect.	No meeting on Monday morning.

2023-01-16	8:00 PM	MS Teams	Present	Task allocation New idea finding	
2023-01-20	8:00 PM	MS Teams	Present	New ideas TAF rewrite Supervisor contact	Look for a relevant component for Anubama.
2023-01-20	10:00AM	MS Teams	Present	Topic Evaluation	
2023-01-21	8:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action
2023-01-27	8:00PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-01-28	10:00AM	MS Teams	Present	Project Charter discussions	Discussed and concluded Project charter.
2023-01-30	10:00AM		Present	Project Charter submission	
2023-02-07	19:00PM	MS Teams	Present	Proposal report draft	Proceed with the planned course of action.
2023-02-12	19:00 PM	MS Teams	Present	Proposal report draft	
2023-02-15	19:00 PM	MS Teams	Present	Proposal report draft	Proceed with the planned course of action.
2023-02-16	19:00 PM	MS Teams	Present	Proposal report draft	Proceed with the planned course of action.
2023-02-17	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-19	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-22	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-23	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-24	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-26	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-26	19:00 PM	MS Teams	Present	Progress status	
2023-02-27	19:00 PM	MS Teams	Present	Progress status	Proceed with the planned course of action.
2023-02-28	19:00 PM	MS Teams	Present	Cancelled due to connection issue	
2023-03-03	9.00PM	MS Teams	Present	Proposal report draft	Go Forward with the scheduled plan
2023-03-12	9:00PM	MS Teams	Present	Proposal report draft	

2023-03-15	9:00PM	MS Teams	Present	Proposal report draft	Go Forward with the scheduled plan
2023-03-16	9:00PM	MS Teams	Present	Proposal report draft	Go Forward with the scheduled plan
2023-03-17	9:00PM	MS Teams	Present	Proposal report draft	Go Forward with the scheduled plan
2023-03-19	19:00	MS Teams	Present	Proposal report draft	Go Forward with the scheduled plan
2023-03-21	19:00	MS Teams	Present	Proposal report draft	
2023-03-22	19:00	MS Teams	Present	Proposal report draft	Go Forward with the scheduled plan
2023-03-23	19:00	MS Teams	Present	Working on Proposal Presentation	Go Forward with the scheduled plan
2023-03-24	19:00	MS Teams	Present	Working on Proposal Presentation	Go Forward with the scheduled plan
2023-03-26	19:00	MS Teams	Present	Working on Proposal Presentation	Go Forward with the scheduled plan
2023-03-29	19:00	MS Teams	Present	Worked on Coding	
2023-03-30	19:00	MS Teams	Present	Worked on Coding	Go Forward with the scheduled plan
2023-03-31	19:00	MS Teams	Present	Worked on Coding	
2023-04-02	19:00	MS Teams	Present	Worked on Coding	
2023-04-05	19:00	MS Teams	Present	Worked on Coding	Go Forward with the scheduled plan
		MS			Go Forward with the

2023-04-06	19:00	Teams	Present	Worked on Coding	scheduled plan
2023-04-07	19:00	MS Teams	Present	Worked on Coding	
2023-04-09	19:00	MS Teams	Present	Worked on Coding	Go Forward with the scheduled plan
2023-04-12	19:00	MS Teams	Present	Worked on Coding	
2023-04-13	19:00	MS Teams	Present	Worked on Coding	Go Forward with the scheduled plan
2023-04-14	19:00	MS Teams	Present	Cancelled due to New year	
2023-04-16	19:00	MS Teams	Present	Worked on Coding	Go Forward with the scheduled plan
2023-04-19	19:00	MS Teams	Present	Worked on Coding	Go Forward with the scheduled plan
2023-04-20	19:00	MS Teams	Present	Final proposal report	Go Forward with the scheduled plan
2023-04-21	19:00	MS Teams	Present	Final proposal report	Go Forward with the scheduled plan
2023-04-23	19:00	MS Teams	Present	Final proposal report	Go Forward with the scheduled plan
2023-04-26	19:00	MS Teams	Present	Progress status, PP1 Marking Rubric discussion	Go Forward with the scheduled plan
2023-04-27	7:00 PM	MS Teams	Present	Progress status, meeting journal	Do the changes discussed
2023-04-28	7:00 PM	MS Teams	Present	Progress status	Do the changes discussed
		MS			Do the changes discussed

2023-05-03	7:00 PM	Teams	Present	Progress status	
2023-05-04	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	Go Forward with the plan
2023-05-05	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	Go Forward with the plan
2023-05-07	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	Go Forward with the plan
2023-05-10	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	Go Forward with the plan
2023-05-11	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	Go Forward with the plan
2023-05-12	7:00 PM	MS Teams	Present	50% Progress status for PP1, PP1 Marking Rubric discussion, PP1 Slides Preparation	Go Forward with the plan
2023-05-14	7:00 PM	MS Teams	Present	Progress status	Go Forward with the plan
2023-05-17	7:00 PM	MS Teams	Present	Progress status	Go Forward with the plan
2023-05-18	7:00 PM	MS Teams	Present	Progress status	Go Forward with the plan
2023-05-19	7:00 PM	MS Teams	Present	Progress status	Go Forward with the plan

2023-05-21	7:00 PM	MS Teams	Present	Discussion with the supervisor regarding the pp1 presentation slides	Make changed according to supervisor's comments
2023-05-24	7:00 PM	MS Teams	Present	Progress status	Go Forward with the plan
2023-05-25	7:00 PM	MS Teams	Present	Progress status	Go Forward with the scheduled plan
2023-05-26	7:00 PM	MS Teams	Present	Progress status	Go Forward with the scheduled plan
2023-05-28	7:00 PM	MS Teams	Present	Progress status	Go Forward with the scheduled plan
2023-05-31	7:00 PM	MS Teams	Present	Progress status	Go Forward with the scheduled plan
2023-06-02	5:00 PM	MS Teams	Present	Discussion about researchpaper references.	Starting research paper writing.
2023-06-04	6:00 PM	MS Teams	Present	Discussion about researchpaper references.	Research paper writing.
2023-06-10	6:30 PM	MS Teams	Present	Discussion about research paper and conferences	Research paper writing.
2023-06-15	7:15 PM	MS Teams	Present	Discussion about research paper context. Discussion with supervisor about the Doubts regarding the research paper.	Research paper writing, Do the changes that mentioned by the Supervisor
2023-06-19	5:00 PM	MS Teams	Present	Code implementation discussion, start research paper writing.	Research paper writing and Initiate software development.
2023-06-25	6:00 PM	MS Teams	Present	Code implementation discussion, Discussion about research paper and start research	Research paper writing and Initiate software development.

				paper writing.	
2023-06-29	7:00 PM	MS Teams	Present	Code implementation discussion, Discussion about research paper and conferences, Discussion with co supervisor about the conferences and research paper	Go forward with the scheduled plan, Do the changes that mentioned by the Supervisor, Focus on the grammar and the research paper Standards.
2023-06-30	8:00 PM	MS Teams	Present	Code implementation discussion, Discussion about research paper and start research paper writing.	Research paper writing with the grammar and the research paper Standards checking and Initiate software development.
2023-07-03	7:30 PM	MS Teams	Present	Discussion about the Backend and Frontend development, got feedback about the research paper from Supervisor	Research paper writing and Initiate software development.
2023-07-05	5:00 PM	MS Teams	Present	Discussion about the Backend and Frontend development, research paper writing discussion.	Research paper writing and Initiate software development for backend.
2023-07-07	4:00 PM	MS Teams	Present	Begin Code implementation of backend, research paper writing discussion.	Go forward with the scheduled plan, Research paper writing and scripting for backend.
2023-07-13	8:00 PM	MS Teams	Present	Code implementation of backend, research paper writing discussion.	Research paper writing and Commence coding for backend.
2023-07-16	7:00 PM	MS Teams	Present	Code implementation of backend, research paper writing discussion.	Research paper writing and scripting for backend.
2023-07-19	4:30 PM	MS Teams	Present	Begin Code implementation of frontend, backend implementation, research paper writing discussion.	Research paper writing and Commence coding for frontend, scripting for backend.
2023-07-22	7:15 PM	MS Teams	Present	Code implementation of backend and frontend, research paper writing.	Go forward with the scheduled plan, Research paper writing and scripting for frontend and backend.
2023-07-24	5:00 PM	MS Teams	Present	Code implementation of backend and frontend, research paper writing.	Research paper writing and scripting for frontend and backend.
2023-07-27	6:00 PM	MS Teams	Present	Code implementation of backend and frontend, research paper writing.	Research paper writing and scripting for frontend and backend.

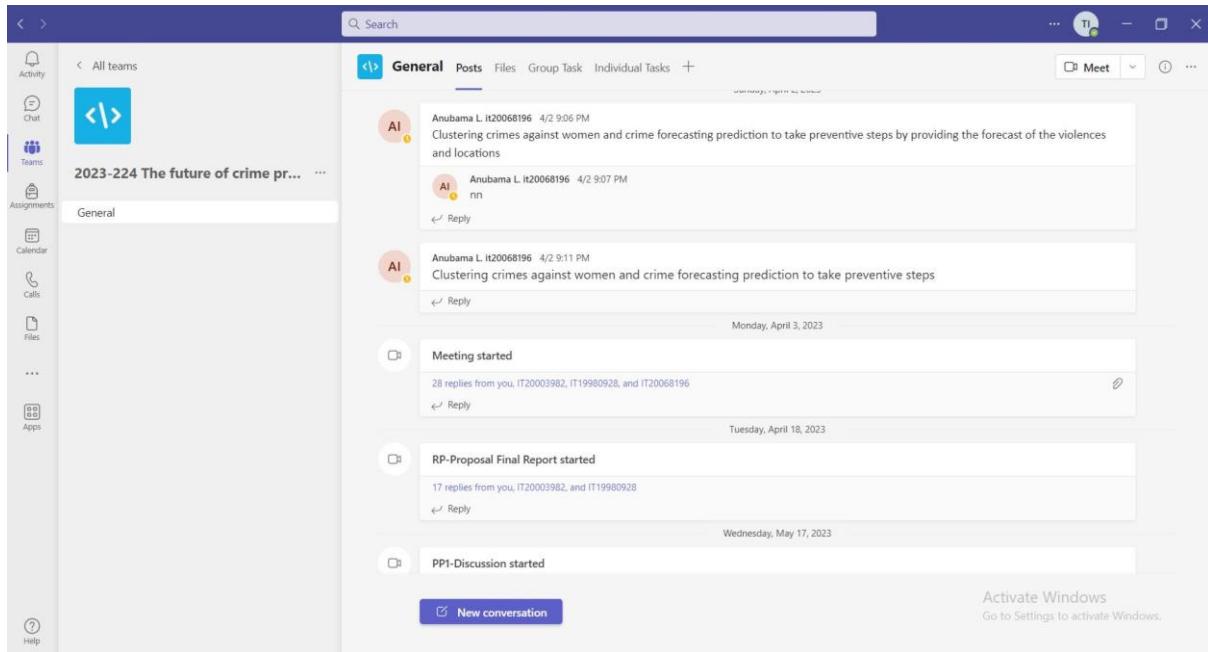
2023-07-30	7:00 PM	MS Teams	Present	Code implementation of backend and frontend, research paper writing.	Research paper writing and scripting for frontend and backend.
2023-08-01	5:00 PM	MS Teams	Present	Code implementation of backend and frontend, research paper writing.	Research paper writing and scripting for frontend and backend.
2023-08-04	6:00 PM	MS Teams	Present	Code implementation of backend and frontend, research paper writing. discussion with the supervisor to clear doubts.	Research paper writing and scripting for frontend and backend. Do the changes that mentioned by the Supervisor
2023-08-07	7:00 PM	MS Teams	Present	Individual component testing and research paper writing	Research paper writing and code testing.
2023-08-10	7:00 PM	MS Teams	Present	Confirm Individual component testing result changes and research paper writing	Research paper writing and code testing.
2023-08-12	12:00 PM	MS Teams	Present	System integration and research paper writing	Research paper writing and code testing.
2023-08-16	01:00 PM	MS Teams	Present	Start system integration testing and research paper draft finalizing.	Research paper writing and code testing.
2023-08-19	7:00 PM	MS Teams	Present	System integration testing changes update checking and research paper draft finalizing.	Research paper writing and code testing.
2023-08-22	4:00 PM	MS Teams	Present	System integration testing and changes update checking and research paper draft finalizing.	Research paper writing and code testing.
2023-08-24	8:00 PM	MS Teams	Present	system testing and research paper draft finalizing.	Finalizing Research paper writing and code testing.
2023-08-25	7:00 PM	MS Teams	Present	Finalizing system coding for the PP1 presentation.	Finalizing Research paper writing and code testing.
2023-08-29	8:00 PM	MS Teams	Present	Progress presentation 1 final checking	Progress presentation 1 finalization
2023-09-01	6:30 PM	MS Teams	Present	PP2 Discussions – Code Discussions. Regarding PP2 Slides Discussions regarding Status Document 2	Started to write status document 2
2023-09-02	10:30 AM	MS Teams	Present	Creating Slides for Each Member's Component,	Common slides are done

				and discussions regarding status document 2 progress	
2023-09-03	6:30 PM	MS Teams	Present	Checks PP2 Slides and Running the Web Application (Checking)	Application runs successfully. PP2 Slide need Improvements
2023-09-04	6:30 PM	MS Teams	Present	Discussing to finalize the PP2 Slides and Integrated code	Finalize the PP2 Slides and Integrated code
2023-09-05	6:30 PM	MS Teams	Present	Checking the PP2 code and slide. Preparation	Go forward with the plan
2023-09-06	6:30 PM	MS Teams	Present	Discussing regarding status document 2 submission, Discussions regarding Final Report(draft)	Status document 2 submitted
2023-09-07	6:30 PM	MS Teams	Present	Continuing the draft final report. And progress of the report	Modify the final report
2023-09-08	10:30 AM	MS Teams	Present	Individual Report Discussions (status update)	Go forward with the plan
2023-09-09	10:30 AM	MS Teams	Present	Individual Report, Group Report Discussions (status update)	Finalize the Report
2023-09-10	10:30 AM	MS Teams	Present	Report submission with group meeting	Submitted the final report in CDAP
2023-09-15	6:30 PM	MS Teams	Present	Discussions regarding remaining submissions in Research Project	Go forward with the plan
2023-09-17	6:30 PM	MS Teams	Present	Discussions regarding our project application and its functions	Go forward with the plan

2023-09-18	6:30 PM	MS Teams	Present	Discussing to publish the research paper in some other conferences/journals	Go forward with the plan
2023-09-19	6:30 PM	MS Teams	Present	Discussing to publish the research paper in some other conferences.	We have previously submitted our work in ICAC, and after careful consideration, we have concluded that there is no need to publish it on other platforms.
2023-09-22	6:30 PM	MS Teams	Present	Testing the application	Go forward with the plan
2023-09-23	6:30 PM	MS Teams	Present	Testing the application	Go forward with the plan
2023-09-25	6:30 PM	MS Teams	Present	Discussions about the dataset proof. (Meeting with Kurunegala DIG)	Go forward with the plan
2023-09-27	8:30 PM	MS Teams	Present	Addressing code errors with the team	Fixed the error
2023-09-29	7:30 PM	MS Teams	Present	Initiated work on the remaining 10% of the code and held discussions.	provided guidance to the team.
2023-10-01	6:30 PM	MS Teams	Present	Status Update	Go forward with the plan
2023-10-03	6:30 PM	MS Teams	Present	Discussions regarding logbook	Go forward with the plan
2023-10-05	6:30 PM	MS Teams	Present	Discussing dataset proof and remaining code.	Go forward with the plan
2023-10-07	6:30 PM	MS Teams	Present	Reviewing remaining issues in the app.	Go forward with the plan
2023-10-10	6:30 PM	MS Teams	Present	Reviewing remaining issues in the app.	Fixed the issues
2023-10-12	6:30 PM	MS Teams	Present	Meeting to address alterations made to the track name in the ICAC research paper submission.	Go forward with the plan
2023-10-14	6:30 PM	MS Teams	Present	Conversations concerning the acceptance email for the ICAC Research Paper.	Discussed Next Steps

2023-10-16	6:30 PM	MS Teams	Present	Conversations about the reviews of the ICAC research paper.	Acknowledged the reviews and modifications.
2023-10-18	6:30 PM	MS Teams	Present	Discussions regarding Final Viva and Code (Status Update)	Go forward with the plan
2023-10-19	6:30 PM	MS Teams	Present	Conversations about the PDF Express and Camera-Ready Submission	Understanding the next steps
2023-10-21	6:30 PM	MS Teams	Present	Do modifications in the Research Paper	Go forward with the plan
2023-10-23	6:30 PM	MS Teams	Present	Final Viva Code Integration testing	Code works well
2023-10-24	6:30 PM	MS Teams	Present	Final Viva Presentation Slides Preparation	Go forward with the plan
2023-10-25	6:30 PM	MS Teams	Present	Status update on slide and code	Go forward with the plan
2023-10-26	10:30 AM	MS Teams	Present	Discussions regarding research paper registration	Go forward with the plan
2023-10-27	10:30 AM	MS Teams	Present	Final Code Checking	Application works well
2023-10-28	10:30 AM	MS Teams	Present	Individual Component Discussions on Presentation Slides	Preparation for presentation
2023-10-29	6:30 PM	MS Teams	Present	Finalizing each member's logbooks	Logbooks are ready
2023-10-30	6:30 PM	MS Teams	Present	Final Viva Preparation and Q&A Readiness	Preparation Completed

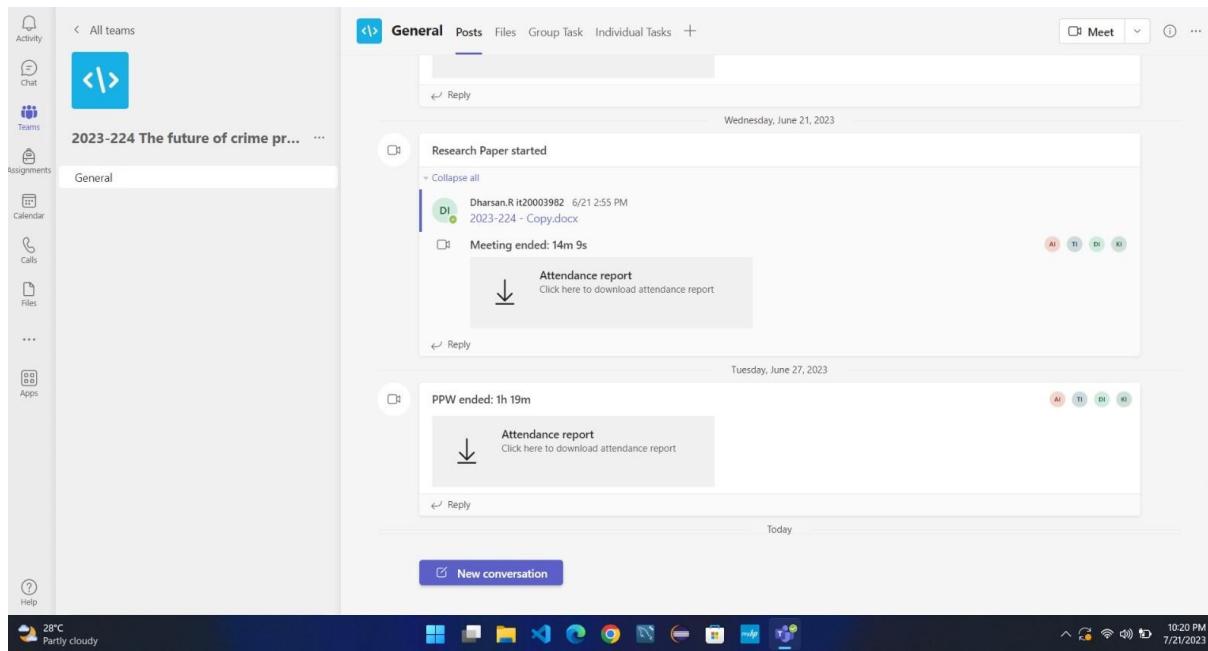
## 2. MS Teams Meeting with Members.



**General Channel Activity:**

- Anubama L. It20068196 4/2 9:06 PM: Clustering crimes against women and crime forecasting prediction to take preventive steps by providing the forecast of the violences and locations
- Anubama L. It20068196 4/2 9:07 PM: nn
- Anubama L. It20068196 4/2 9:11 PM: Clustering crimes against women and crime forecasting prediction to take preventive steps
- Meeting started (28 replies from you, IT20003982, IT19980928, and IT20068196)
- RP-Proposal Final Report started (17 replies from you, IT20003982, and IT19980928)
- PPT-Discussion started

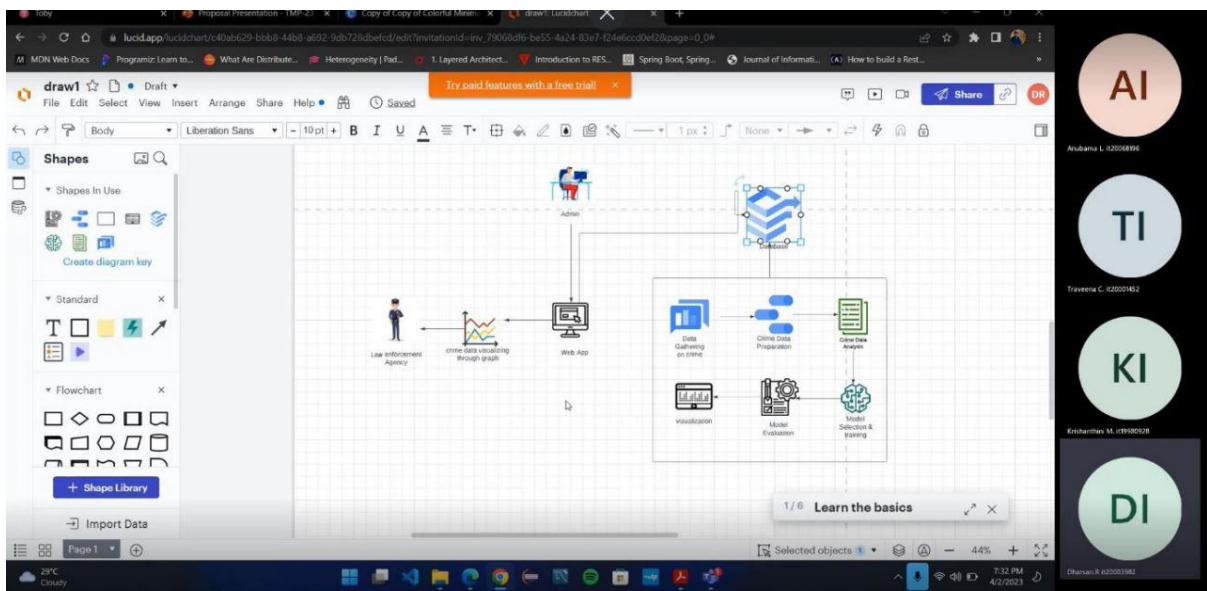
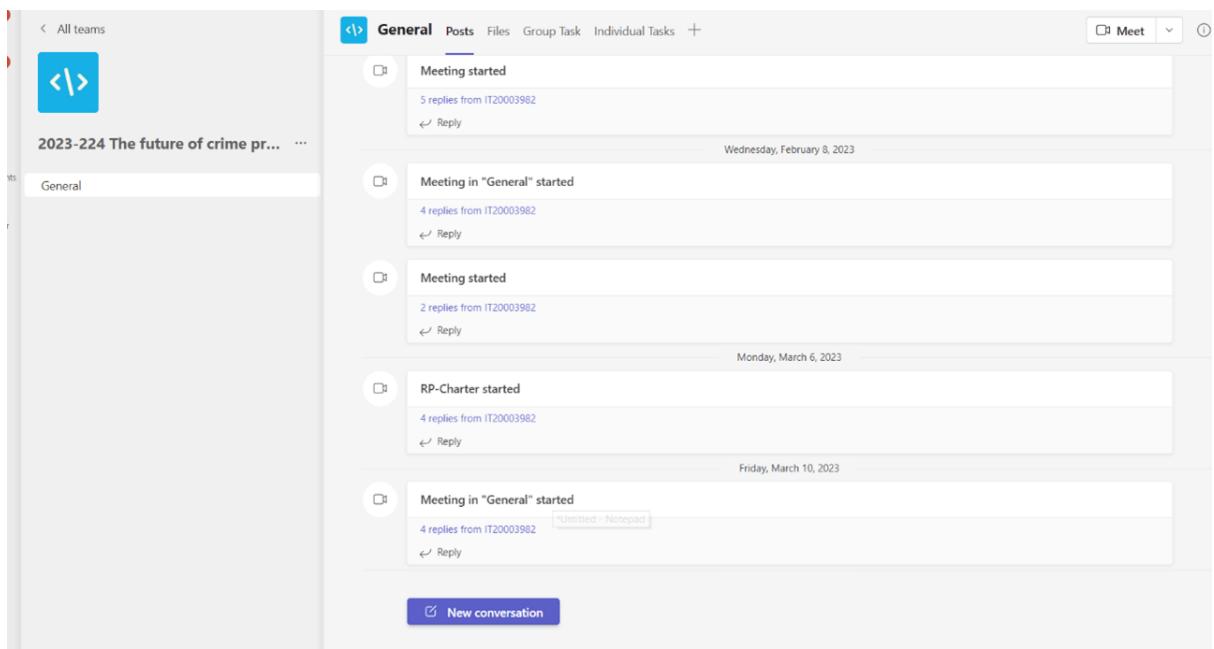
**Activate Windows:**  
Go to Settings to activate Windows.



**General Channel Activity:**

- Research Paper started (Dharsan.R It20003982 6/21 2:55 PM: 2023-224 - Copy.docx)
- Meeting ended: 14m 9s (Attendance report: Click here to download attendance report)
- PPW ended: 1h 19m (Attendance report: Click here to download attendance report)

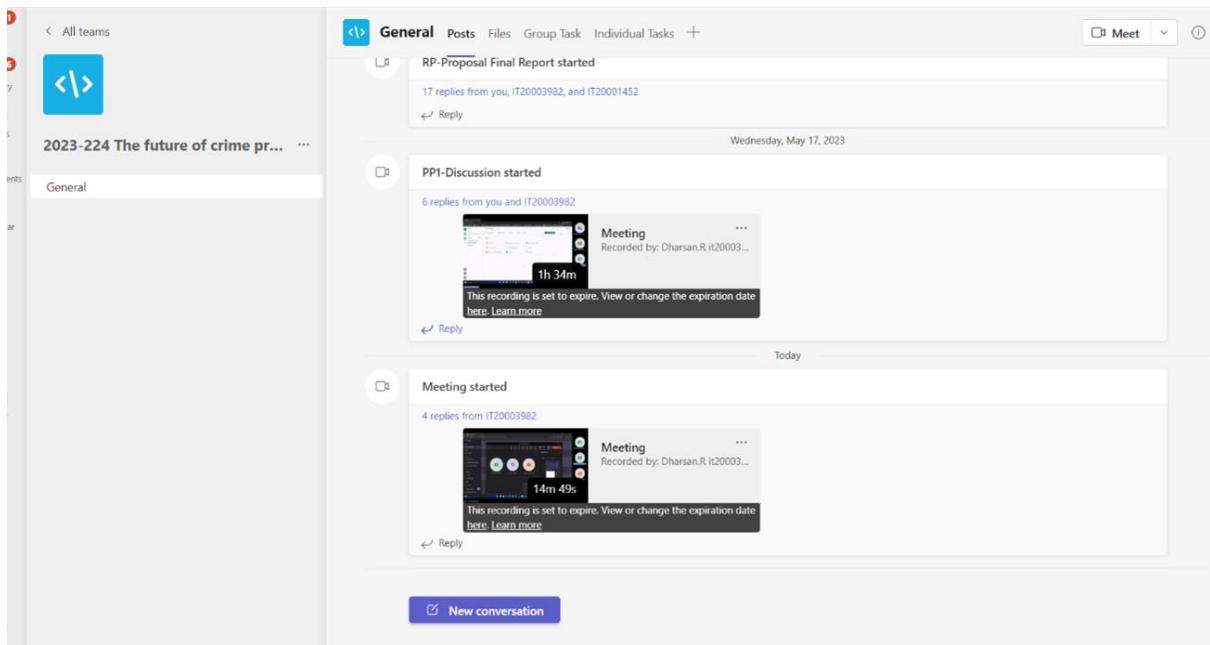
**System Status:**  
28°C Party cloudy | 10:20 PM 7/21/2023

The screenshot shows a Microsoft Teams General channel interface. The messages listed are:

- Meeting started (Wednesday, February 8, 2023)
- Meeting in "General" started (Wednesday, February 8, 2023)
- Meeting started (Monday, March 6, 2023)
- RP-Charter started (Friday, March 10, 2023)
- Meeting in "General" started (Friday, March 10, 2023)

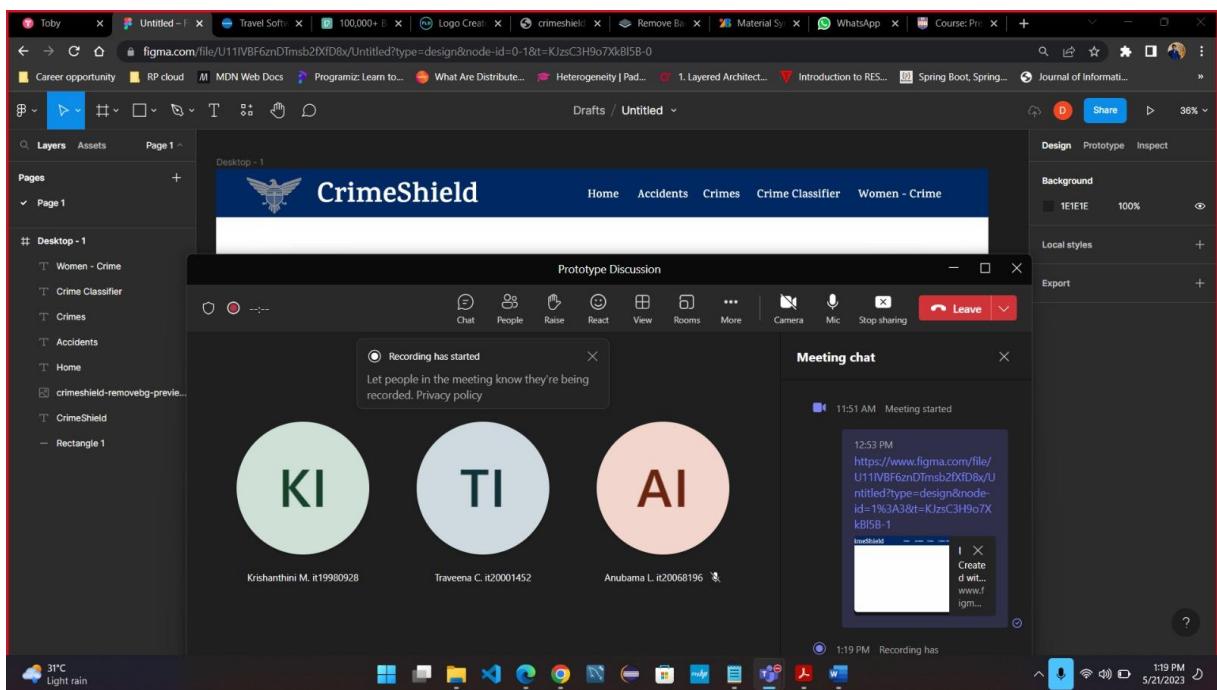
A blue button at the bottom center says 'New conversation'.



The screenshot shows a Microsoft Teams channel named "General". It contains three recorded meetings:

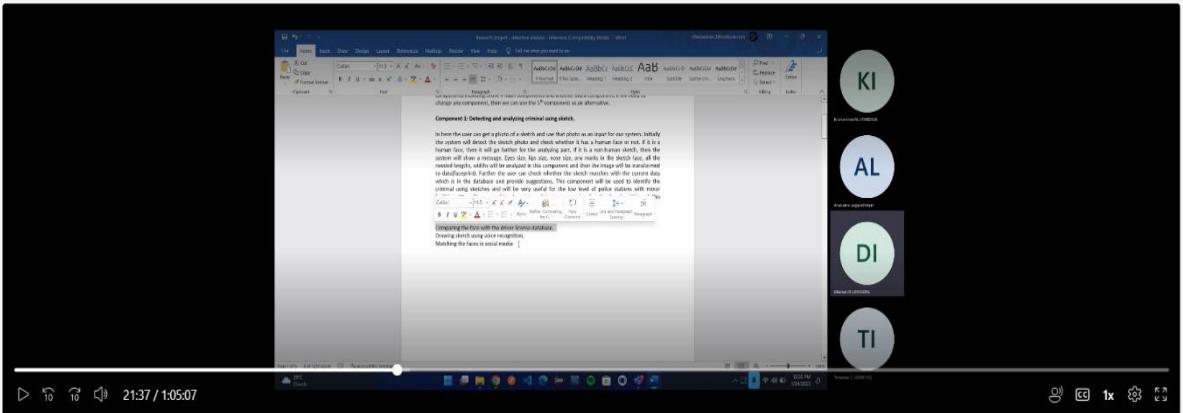
- RP-Proposal Final Report started**: 17 replies, Wednesday, May 17, 2023.
- PP1-Discussion started**: 6 replies, Recorded by: Dharsan.R it2003..., 1h 34m.
- Meeting started**: 4 replies, Recorded by: Dharsan.R it2003..., 14m 49s.

A "New conversation" button is visible at the bottom.



The screenshot shows a Figma prototype discussion window titled "Prototype Discussion" overlaid on a CrimeShield dashboard. The dashboard features a header with the CrimeShield logo and navigation links: Home, Accidents, Crimes, Crime Classifier, and Women - Crime. Below the header, there are three circular icons labeled KI, TI, and AI, each associated with a name and ID: Krishanthini M. it19980928, Traveena C. it20001452, and Anubama L. it20068196. The Figma window displays a recording message: "Recording has started" and "Let people in the meeting know they're being recorded. Privacy policy". A "Meeting chat" sidebar shows a message from "11:51 AM Meeting started". The Figma interface includes a sidebar with "Pages" (Desktop - 1, Page 1) and a toolbar with various design tools.

Add a description to explain what this video is about.

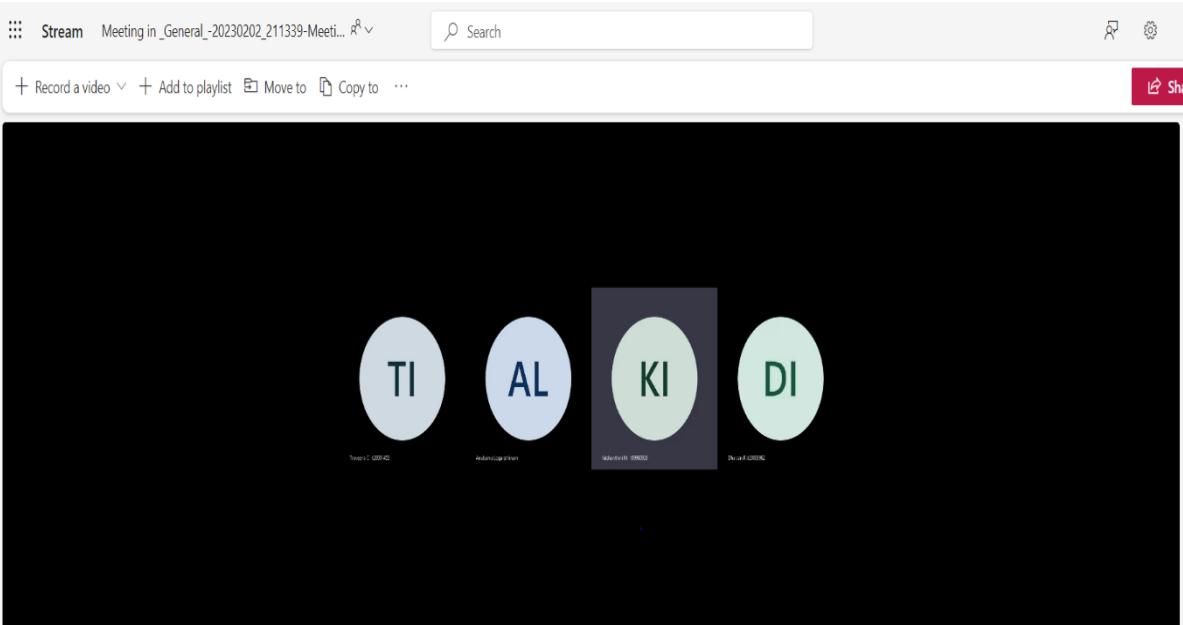


RP Discussion - components

January 24, 2023 No expiration • 3 views • Dharsan.R it20003982 • ... General > Recordings

Add a description to explain what this video is about.

We'd love your opinion!



Meeting in "General"

February 2, 2023 No expiration • 0 views • Dharsan.R it20003982 • ... General > Recordings

Add a description to explain what this video is about.

PP2-Discussion-20230617\_204671-Meeting Re...  Search

+ Add to playlist  Move to  Copy to 

**jupyter - Decision Tree Assignment\_ML\_IT20003982** Last Checkpoint 04/09/2023 (autoweed)

```
In [1]: female 2955
       male 1035
       other 1
       Name: gender, dtype: int64

In [2]: #check total categorical values in ever_married field
        data_stroke_01['ever_married'].value_counts()

Out[2]: Yes 1357
        No 1732
        Name: ever_married, dtype: int64

In [3]: #check total categorical values in work_type field
        data_stroke_01['work_type'].value_counts()

Out[3]: Private 2925
        Self-employed 467
        Never 467
        Govt. 467
        Never worked 39
        Name: work_type, dtype: int64

In [4]: #check total categorical values in residence_type field
        data_stroke_01['residence_type'].value_counts()

Out[4]: Urban 2396
        Rural 2314
        Name: residence_type, dtype: int64

In [5]: #check total categorical values in smoking_status field
        data_stroke_01['smoking_status'].value_counts()

Out[5]: Non-smoker 2879
        Formerly smoked 1544
        Smoker 895
        Unknown 99
```

1:23:09 / 1:34:56

**VS Code**

File Edit Selection View Go Run Terminal Help

index.js

```
const PORT = process.env.PORT || 3000;
// Connect to mongoDB
mongoose.connect('your mongo address', {
  useNewUrlParser: true,
  useUnifiedTopology: true,
});

// Define todo schema
const todoschema = new mongoose.Schema({
  title: String,
  completed: Boolean,
});

const Todo = mongoose.model('Todo', todoschema);

app.use(express.json());

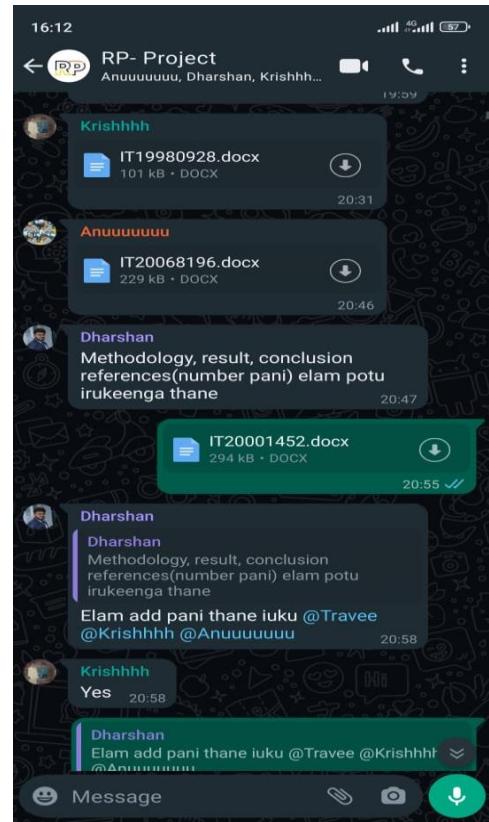
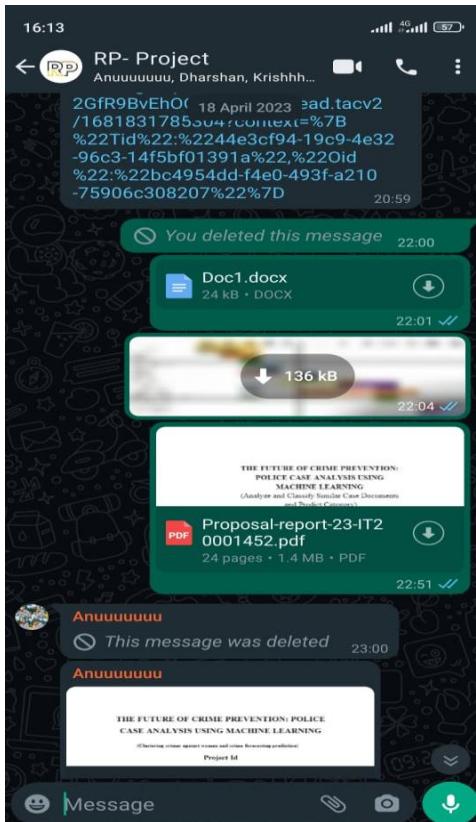
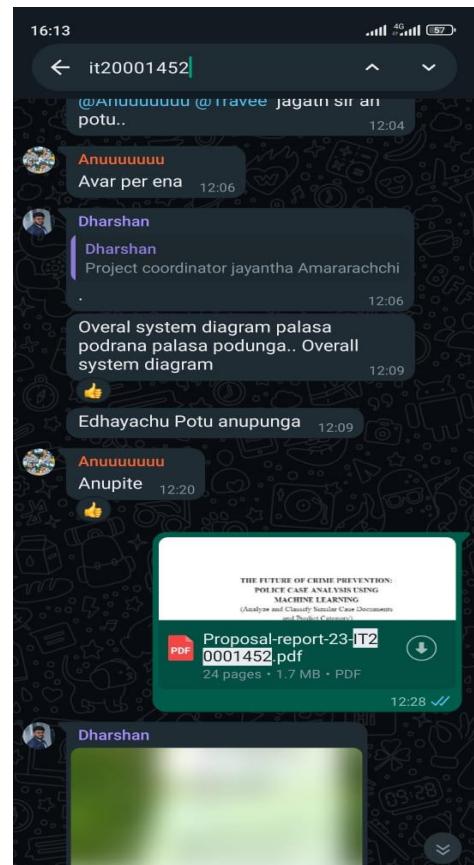
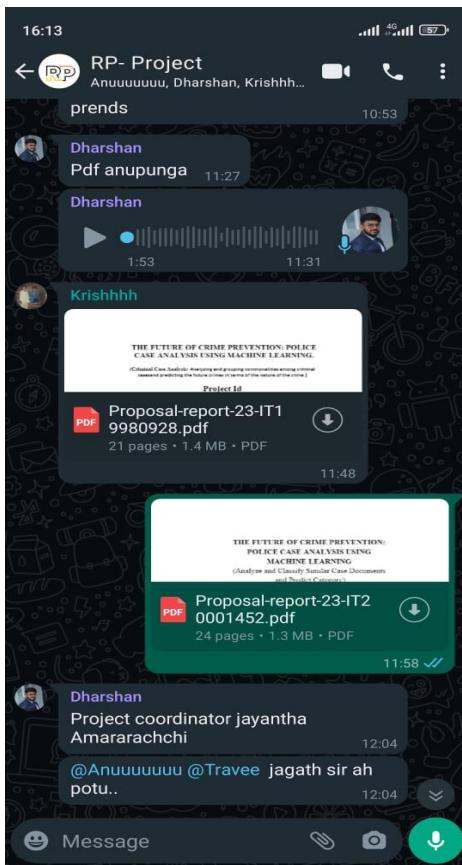
// API endpoints
app.get('/todos', async (req, res) => {
  try {
    const todos = await Todo.find();
    res.json(todos);
  } catch (error) {
    res.status(500).json({ error: 'server error' });
  }
});

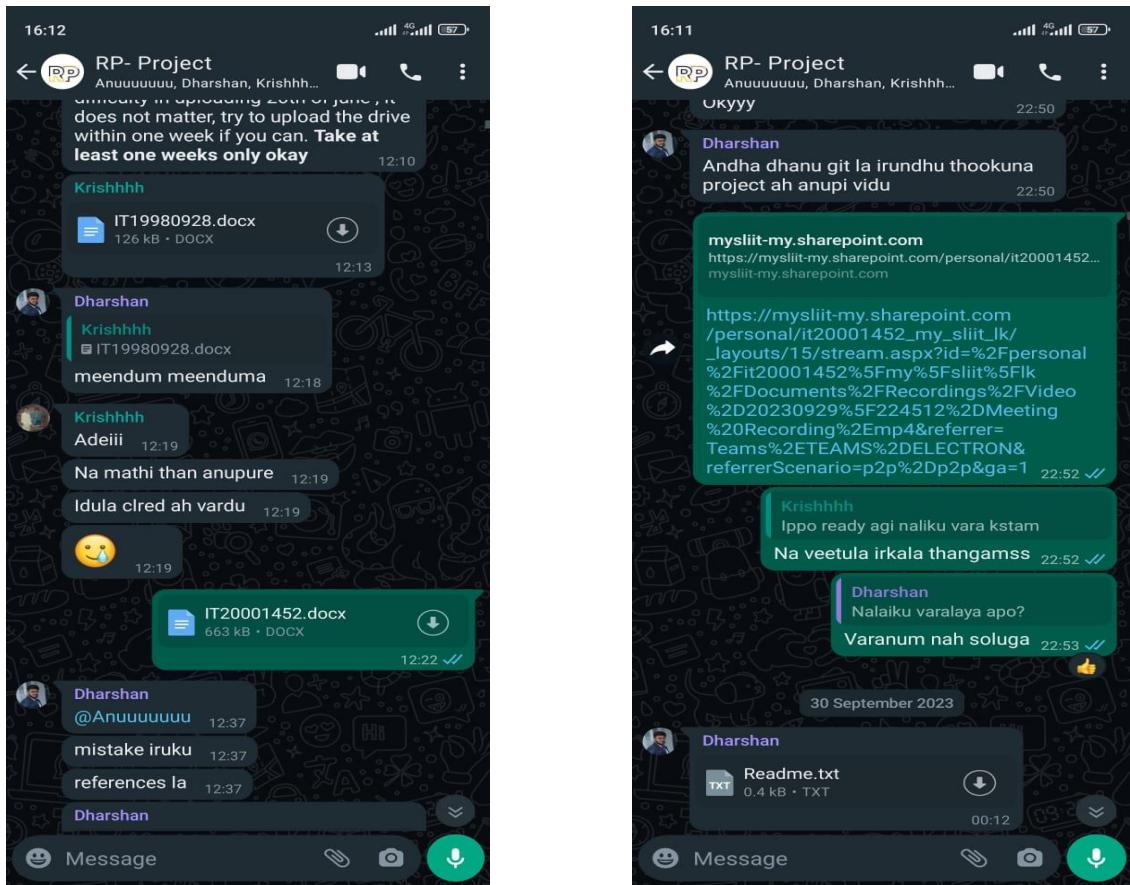
app.post('/todos', async (req, res) => {
  try {
    const { title, completed } = req.body;
    const todo = new Todo({
      title,
      completed,
    });
    await todo.save();
    res.json(todo);
  }
```

KI Krishanthini M. i...  
AI Anubama L. it20...  
DI Dharsan.R. it20...  
TI Traveena C. it20...

Dharsan.R. it20003982

### 3. WhatsApp Discussions with Group members







#### 4. Ms Teams call with the supervisor.

**RP - Police 2023** Chat Files +

12/21/2022 3:32 PM Recording has stopped. Saving recording...

3 (You) 5/20

samli 5/20

Monday 6.00 P... 5/16

4/28

4/26

1 4/20

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3/24

are/Tutorial (...) 3/22

cial Neural N... 3/18

iscussion 3/15

3/8

with supervisor 3/7

y/Weekend 3/4

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Recording Dharsan.R it20003982 31m 25s

Hansika Mahaadikara 12/23/2022 11:03 AM What's the project title?

Dharsan.R it20003982 12/23/2022 11:04 AM A Detective Analysis System for Police Stations with Minor Facilities

Dharsan.R it20003982 12/23/2022 11:04 AM A Detective Analysis System for Police Stations with Minor Facilities

If we need to do any amendments, please let us know madam.

Dharsan.R it20003982 added Traveena C. it20001452 to the chat.

Dharsan.R it20003982 changed the group name to RP - Police 2023.

2/6 0:24 AM Call ended 1m 3s

Monday, February 6

Type a new message

Join 8:4

**RP - Charter - Discussion ...** Chat Files Meeting Notes Recordings & Transcri... Meeting Whiteboard Q&A + Join 8:4

3 (You)

3/7 9:01 AM Recording has started

3/7 9:04 AM Recording has stopped. Saving recording...

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Monday 6.00 P... 5/16

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iscussion 3/15

3/8

with supervisor 3/7

iv/Weekend 3/4

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Recording Dharsan.R it20003982 3m 25s

Hansika Mahaadikara was invited to the meeting.

3/7 9:13 AM Recording has started

3/7 9:42 AM Recording has stopped. Saving recording...

Anubama Logarathinam left the chat.

3/7 9:42 AM Meeting ended: 1h 3m 52s

Recording Dharsan.R it20003982 28m 58s

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Type a new message

TAF\_TMP-23-224.pdf - Adobe Acrobat Reader (54-kb)

File Edit View Sign Window Help

Home Tools TAF\_TMP-23-224.pdf

1169 x 827 in 24°C Humid

KI Krishanthi M. (it1996728)

TI Trevanna C. (it2003462)

AL Anubama Loparatheen

DI Dharsan A. (it20031962)

Hansika Mahadeekara

Anubama.L (IT20068196) The sub objective of clustering crimes against women and using machine learning for crime forecasting prediction is to create an effective solution to reduce and prevent such crimes. This involves collecting relevant data, performing clustering analysis, using machine learning algorithms for prediction, evaluating the model's accuracy, integrating it with crime reporting systems, and continuously monitoring and updating the model. The end goal is to provide real-time warnings and recommendations to police investigators to improve the safety of women. This solution will be more time-efficient and accurate than relying solely on the human mind.

Collecting and preprocessing crime data and clustering algorithms are applied to group similar crimes against women based on their characteristics. The resulting clusters are then analyzed to identify patterns and trends that may be relevant to the investigation. Finally, predictive models are trained on the crime data to forecast future crimes and identify areas where additional resources may be needed. This task has significant advantages for police investigators and public safety, as it can improve crime prevention efforts, enhance resource allocation, and inform decision-making.

By identifying patterns, trends, and relationships in crime data, this task can help police investigators better understand the factors that contribute to crime and take proactive measures to prevent it. The ability to forecast future crimes can help allocate resources more effectively and respond to emerging crime trends. This novel approach can improve public safety, enhance the effectiveness of police investigators, and contribute to a safer community.

TAF evaluation(1-166) (1) [1] Mail - Dharsan A. (it20031962) - Microsoft Edge

mydilbit-my.sharepoint.com/:g/personal/cdap\_srilankan116511dM0xmfht5hYB5qXq3MrivtMia0b1RQ7eRQ61y0

MDN Web Docs Programiz Learn to... What Are Distribut... Heterogeneity | Pad... 1. Layered Architect... Introduction to RES... Spring Boot, Spring... Journal of Informat... (A) How to build a Rest...

Excel TAF evaluation(1-166) (1) - Saved

File Home Insert Draw Formulas Data Review View Automate Help Table Design Comments Catch up Viewing Share

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read-only This workbook was opened in read-only mode.

Machine Learning Models needs to be researched and identified through a good research review.

Project ID Project Topic (please copy it from the TAF)

115		
TMP-23-224	Police Investigation Analysis and Future Prediction	
116		
TMP-23-225	LittleGenie - E Learning Platform for Grade 1 & Grade 2 School Children	

Sheet1 Workbook Statistics Give Feedback to Microsoft 9:15 AM 3/7/2023 24°C Humid

KI Krishanthi M. (it1996728)

TI Trevanna C. (it2003462)

AL Anubama Loparatheen

DI Dharsan A. (it20031962)

Hansika Mahadeekara

Mail - Dharsan.R it20003982 - O | + outlook.office.com/mail/sentItems/id/AAQkADY0YTbZDgLMW4ODE1NDIjMj04OTQzLjdZmUyNjJhNjUyNgAQAM7GCNio9ZRG77FDRLFhw%3D

Career opportunity RP cloud MDN Web Docs Programiz: Learn to... What Are Distribute... Heterogeneity | Pad... 1. Layered Architect... Introduction to RES... Spring Boot, Spring... Journal of Informati...

Outlook Search

New mail Delete Archive Report Sweep Move to Filter

Sent Items Last month PPW 2023 - Mock Interviews > PPW-2023-114 Wed 6/28 No preview is available.

Sanji Chandrasiri Request for Review and Feedback o... 6/20/2023 Dear Madam, We are writing to request your re... 2023-224-Res...

Hansika Mahaadikara Request for Review and Feedback o... 6/20/2023 Dear Madam, We are writing to request your re... 2023-224-Res...

Anjale Gamage > Inquiry Regarding Final Assignme... 6/17/2023 Dear Madam, I am writing to inquire about the ...

Jayantha Amarachchi > Inquiry Regarding Draft Research ... 6/17/2023 Dear Sir, Thank you for your prompt response. I...

Dharsana Kathuruththra

Request for Review and Feedback on Research Paper - Group ID: 2023-224

DI Dharsan.R it20003982 To: Hansika Mahaadikara Tue 6/20/2023 6:40 PM

2023-224-ResearchPaper202... 693 KB

Dear Madam,

We are writing to request your review and feedback on the draft Research Paper titled "The Future of Crime Prevention: Police Case Analysis using Machine Learning" for our project. Your insights are invaluable to us before we proceed with publishing the paper. We appreciate your prompt review and feedback, as we aim to submit the paper early and allow sufficient time for acceptance or rejection.

Furthermore, we would like to schedule a discussion session to address any feedback or changes you may suggest. Kindly suggest a convenient date and time for this session. Your expertise and guidance are highly valued, and we believe that your input will significantly enhance the quality of our research paper.

Thank you for your invaluable support as our project supervisor. We have also shared the research paper in our WhatsApp group for your convenience. We look forward to receiving your feedback and suggestions.

Best regards,  
Dharsan.R  
Group ID: 2023-224  
(POLICE WHATSAPP GROUP)

Reply Forward

28°C Party cloudy 10:26 PM 7/21/2023

RP - Police 2023 Chat Files +

12/21/2022 3:32 PM Recording has stopped. Saving recording...

8 (You) 5/20

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Discussion 3/15

3/8

with supervisor 3/7

sy/Weekend 3/4

Recording 31m 25s

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Hansika Mahaadikara 12/23/2022 11:03 AM What's the project title?

Dharsan.R it20003982 12/23/2022 11:04 AM A Detective Analysis System for Police Stations with Minor Facilities

Dharsan.R it20003982 12/23/2022 11:04 AM A Detective Analysis System for Police Stations with Minor Facilities

If we need to do any amendments, please let us know madam.

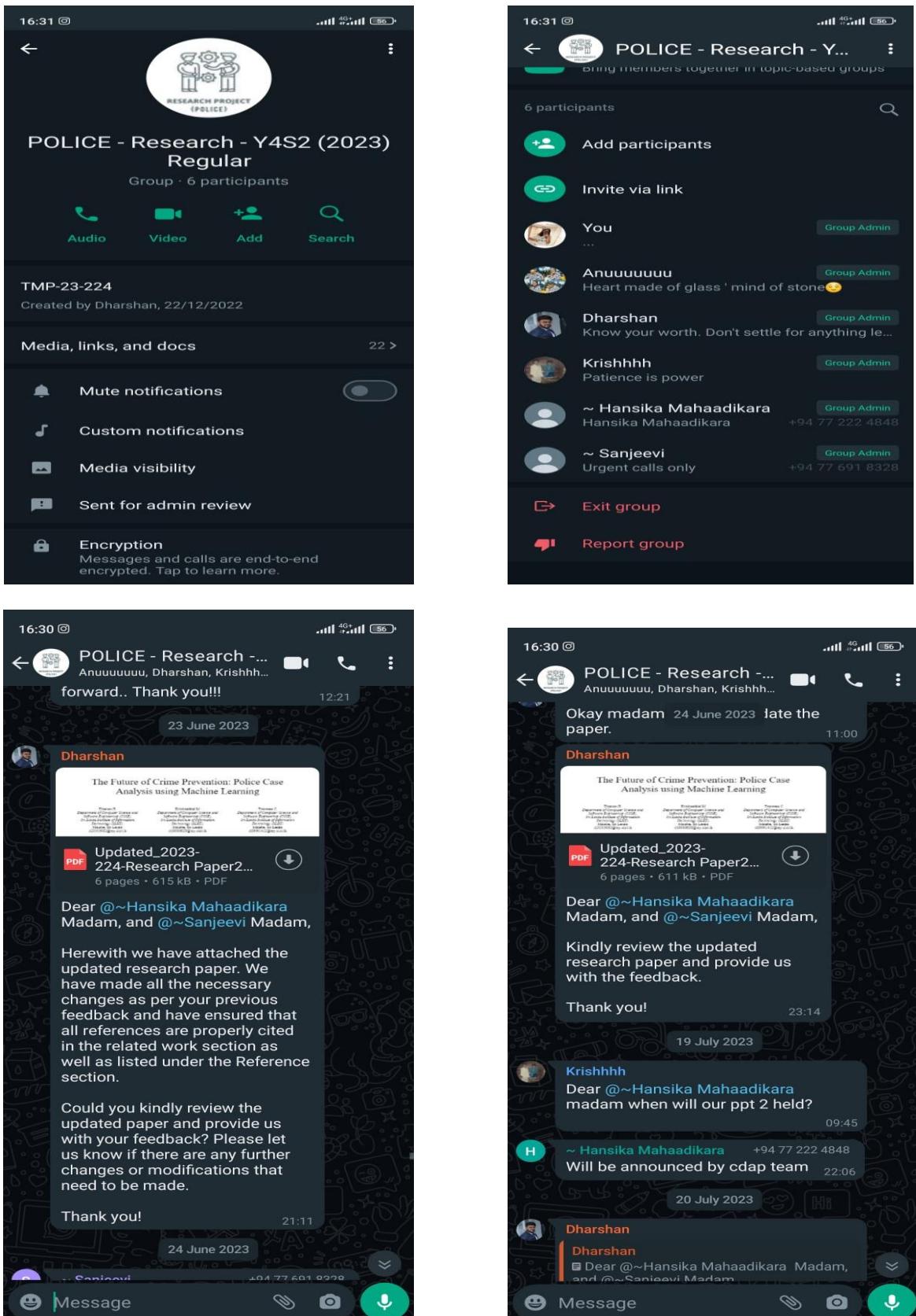
Dharsan.R it20003982 added Traveena C. it20001452 to the chat.

Dharsan.R it20003982 changed the group name to RP - Police 2023.

2/6 8:24 AM Call ended 1m 3s

Type a new message

## 5. WhatsApp Discussions with the Supervisor



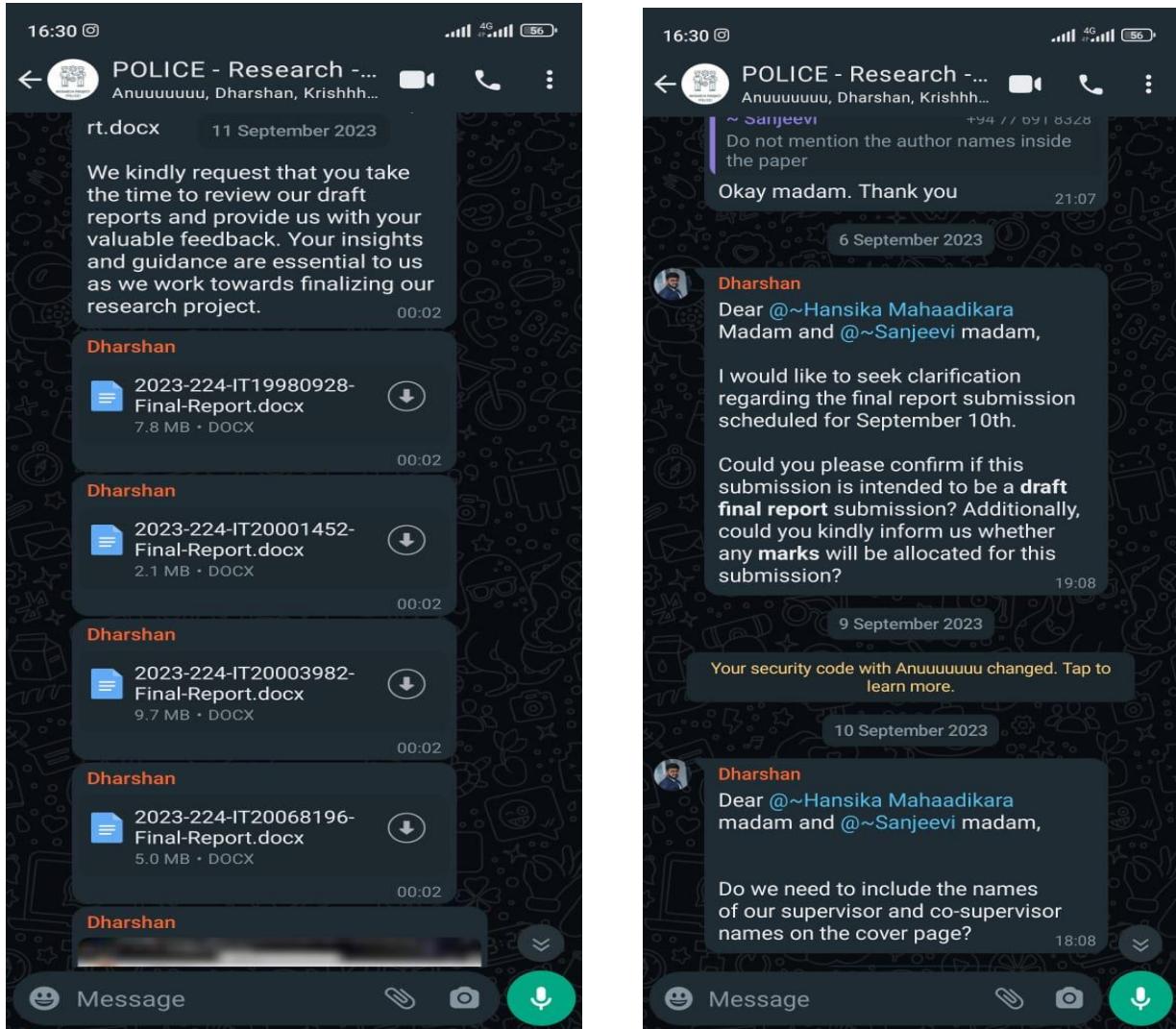
The screenshots illustrate the communication process between the student and their supervisor regarding a research project.

**Group Settings:**

- Screenshot 1:** WhatsApp group settings for "POLICE - Research - Y4S2 (2023) Regular". It shows 6 participants, group creation date (22/12/2022), and various notification options.
- Screenshot 2:** WhatsApp group settings for "POLICE - Research - Y...". It lists 6 participants, including the student and supervisor, all marked as "Group Admin".

**Research Paper Discussion:**

- Screenshot 3:** A message from Dharshan on June 23, 2023, attaching an updated research paper titled "The Future of Crime Prevention: Police Case Analysis using Machine Learning".
- Screenshot 4:** A message from Dharshan on June 24, 2023, thanking the supervisor for the forward and requesting feedback.
- Screenshot 5:** A message from the supervisor on July 19, 2023, asking when the ppt will be held.
- Screenshot 6:** A message from the supervisor on July 20, 2023, stating that the announcement will be made by the cdap team.





## 6. Physical Discussions with the Supervisor

- On 17th of April 2023, we met the Supervisor physically at university and discussed regarding our Proposal Report, main components that must be included in the report was discussed.
- On 17th of April 2023, we met the Supervisor physically at university and discussed regarding our Proposal Report, main components that must be included in the report was discussed.
- On 11th of August 2023, we discussed about the extension facts on the research project with the supervisor and the co-supervisor.

## 7.GIT Lab Commits.

**GitLab** Projects Groups More  Search or jump to...    

2 2023-224

Expiration date   

Project overview Repository Issues Merge Requests CI / CD Operations Analytics Wiki Snippets Settings General Members Integrations 

Existing members and groups

Members of 2023-224

	Find existing members by name 	Sort by	Name, ascending 
Anubama Logaratnam @Anubama.L_IT20068196	Given access 6 days ago · Expires in over 2 years	Developer	2025-12-30 
Dharsan.R_IT20003982 @i20003982DharsanR	It's you · 2023-224 Given access 6 days ago	Owner	
Hansika Mahadikara @hansika.m	Given access 1 day ago · Expires in about 2 years	Guest	2025-07-01 
Krishanthini.M @Krishanthini.M_IT19980928	Given access 6 days ago · Expires in over 2 years	Developer	2025-12-30 
Sanjeevi Sashikala Chandrasiri @sanjeevichan	Given access 1 day ago · Expires in about 2 years	Guest	2025-07-01 
traveena chandrasegar @i20001452	Given access 6 days ago · Expires in over 2 years	Developer	2025-12-30 

2 2023-224

Project overview Details Activity Releases

Repository Issues Merge Requests CI / CD Operations Analytics

 modified template 15 minutes ago

 Update README.md 3 months ago



Topic: The Future of Crime Prevention: Police Case Analysis Using Machine Learning. ID: 2023 - 224

Main Objective: Develop a comprehensive machine learning system that can prevent and solve crimes by analyzing and predicting accident locations, criminal cases, clustering crimes against women and classifying case documents by text analysis. The system aims to enhance public safety by identifying patterns and trends in criminal activity, automating document classification, and providing interactive visualizations to forecast potential future criminal activities.

Main Research Question:

1.How can machine learning algorithms be used to analyze and predict accident locations and connections in police accident cases for targeted safety measures and accident prevention? 2.How can the system used to enhance criminal case analysis and prediction by identifying patterns and trends in the nature of crimes? 3.How can a comprehensive text analysis system be developed to assist police investigation in Sri Lanka to quickly and consistently discover important classification in crime occurrences? 4.How can clustering crimes against women be used to forecast potential future criminal activities and enhance public safety?

2 2023-224

Project overview Details Activity Releases

Repository Issues Merge Requests CI / CD Operations Analytics Wiki Snippets Settings 

quickly and consistently discover important classification in crime occurrences? 4.How can clustering crimes against women be used to forecast potential future criminal activities and enhance public safety?

Individual Research Question:

IT20003982: How can machine learning models predict future accident locations and causes for accidents? How effective are machine learning algorithms in identifying connections in accident data that may be difficult for humans to detect?

IT19980928:What is the importance of technology-based methods in predicting future criminal activities based on the nature of the crime? Why Current manual methods of analysis are inefficient and often lead to inaccuracies in investigate cases? How Machine learning algorithm could be used to develop an automated system for analyzing criminal cases?

IT20001452:What are the specific challenges faced by law enforcement agencies and the court system in Sri Lanka regarding the handling of criminal cases? What are the current challenges in the criminal case handling procedure in Sri Lanka, and how do they impact the judicial system? How can an automated text analysis system assist in improving the efficiency and accuracy of the criminal justice system in Sri Lanka?

IT20068196:How can clustering-based crime forecasting models accurately predict future locations and types of crimes against women, and identify high-risk areas for such crimes? What is the problem with current crime forecasting models in regards to crimes against women? How can a clustering-based crime forecasting model contribute to the development of effective crime prevention strategies for crimes against women?

Individual Objectives:

IT20003982: Develop a machine learning system that can analyze and predict accident locations, causes as well as identify connections between police accident cases, in order to inform targeted safety measures and accident prevention strategies.

IT19980928:Criminal case analysis System for Police to predicting future crimes cases through identifying patterns and trends in terms of nature of the crime.

IT20001452:Develop an automated text analysis system that classifies crime occurrences into relevant categories for law enforcement agencies in Sri Lanka which helps to improve the accuracy and quality of criminal investigations.

IT20068196:Develop a model for predicting crimes against women.Provide information on the locations and types of crimes against women. Enable law enforcement agencies to take preventive measures and allocate resources more effectively

policeAnalysis/policeAnalysis · m · +

Not secure | gitlab.sliit.lk/2023-224/2023-224/-/tree/master/policeAnalysis%2FpoliceAnalysis

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2023-224 > 2023-224 > Details

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crime\_updated Krishanthini.M authored 51 minutes ago 7c16ebc5

Name	Last commit	Last update
...		
accidentAnalysis	crime_updated	51 minutes ago
crime_app	crime_updated	51 minutes ago
myapp	crime_updated	51 minutes ago
policeAnalysis	crime_updated	51 minutes ago
police_analysis	crime_updated	51 minutes ago
static/images	added	2 days ago
DatasetAccident.csv	added pattern	1 day ago
crime_data2.csv	added	2 days ago
crime_data3.csv	added	2 days ago

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2023-224 > 2023-224 > Details

Repository Files

Commits	crime_updated	53 minutes ago
Branches	crime_updated	53 minutes ago
Tags	crime_updated	53 minutes ago
Contributors	crime_updated	53 minutes ago
Graph	added	2 days ago
Compare	added pattern	1 day ago
Issues	crime_updated	53 minutes ago
Merge Requests	added	2 days ago
CI / CD	added	2 days ago
Operations	added	2 days ago
Analytics	added	2 days ago



The screenshot shows a GitLab repository page for a project named "Text Document Classification". The sidebar on the left lists various repository sections: Project overview, Repository (selected), Files, Commits, Branches, Tags, Contributors, Graph, Compare, Issues (0), Merge Requests (0), CI / CD, Operations, and Integrations. The main content area displays a list of recent commits and other activity:

- Text Document Classification by Traveena, 1 month ago (commit 16714251)
- Text Document Classification by Traveena, 1 month ago (commit 4b32bcd1)
- Text Document Classification by Traveena, 1 month ago (commit f02d9ea9)
- Text Document Classification by Traveena, 1 month ago (commit e8bd9671)
- Text Document Classification by Traveena, 1 month ago (commit 393228f1)
- Updates by Traveena, 1 month ago (commit f5438bf7)
- Update by Traveena, 1 month ago (commit c99df284)
- Updated by Traveena, 1 month ago (commit 718c9341)
- initial commit by Traveena, 1 month ago (commit b43c2653)
- mapping by Krishanthini.M, 1 month ago
- text updated by [unseen user], 1 month ago