




WEEKLY BLOG

Year 3 Final Project

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Week 13

Meet My Supervisor






Dr. Maha Saadeh received her PhD degree in computer science from the University of Jordan in 2018. She worked as adjunct lecturer at the computer science department, The University of Jordan. She is currently working as a Senior lecturer in the school of science and technology, computer engineering and informatics department, Middlesex University Dubai, UAE. Dr. Saadeh has experience in teaching artificial intelligence, machine learning, data science, computer networks and network security for undergraduate and postgraduate students. Dr. Saadeh is a member of the ROBOTECHx Lab under Middlesex university Centre for Innovation In Human Experience. She is also part of the Research committee at the University. She has a number of publications in different reputable international journals and conferences. Her research interests are artificial intelligence, machine learning, data science, and network security. Embarking on the final project journey with Dr. Maha has been an illuminating experience, marked by guidance, support, and an unwavering commitment to academic excellence.



Meeting Log

Supervisor: Dr Maha Saadeh

Project: ML and DL based emotion detector

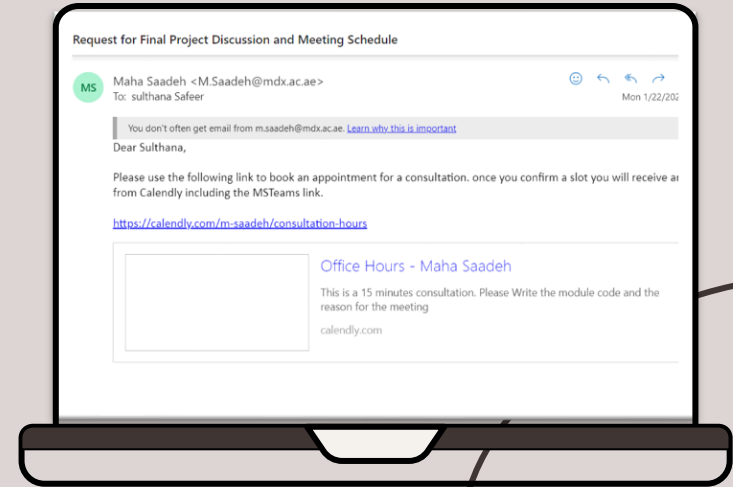
Dates	Meeting Duration	Description	Signature
25/01/24	15 min	Meeting with Dr Maha, Project Approval	
1/02/24	20 min	First Cut Proposal	
8/02/24	30 mins	Final cut proposal, research ethics screening form, WBS, Gant chart approval	
15/02/24	35 mins	Presenting the current project, application research ethics form and Final cut proposal.	
22/03/24	25 mins	To show my project and start the report	

Week 13

Mr. Roshan and Dr. Fehimida introduced us to the course, explaining how it works and what procedures we must complete over the semester. They assisted us in delegating tasks to our supervisors.

I emailed my supervisor, Dr Maha Saadeh and was assigned an appointment on a team call to get the project approved. I explained my project and mentioned it was a desktop application.

Dr Maha Approved my Project.
Started working on first and final cut proposal.



Week 14

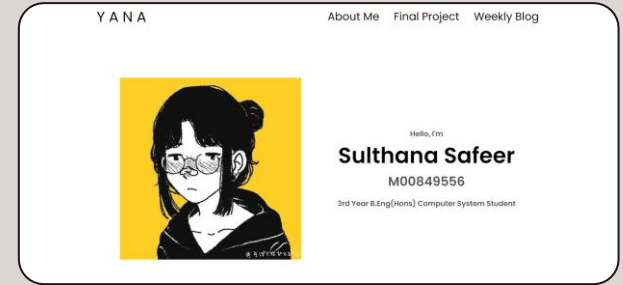
- >Made a Website using HTML, CSS and JS
- >Uploading My Final Cut proposal.
- >Weekly Meeting and Feedback Session with Dr Maha at 5pm.

She assigned me tasks for my proposal and instructed me to revise my Gannt chart and add few more descriptions for my final cut proposal. Then we talked about the ethics form and why it was necessary for the project. We ended the day by discussing the ethical questions that will be asked, as well as the project's outcome.

- > Rest of the week I worked on Gannt chart and WBS



PDE31122final(Formal) Proposal template.pdf



Week 15

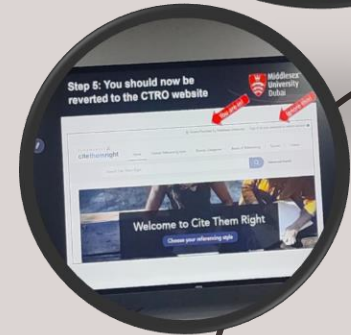
>This week, we attended an informative session led by Mrs. Laura from the library and Mrs. Siobhan from CAS, Central Academic Success.

They provided important insights into how to effectively use ChatGPT, a platform that helps us get a full picture of our projects. She advised us on how to use this technology to improve our comprehension and speed the study process.

We played Kahoots and had an interactive session.

>They showed us how to collect references and journals from the library, Unihub, and Google Scholars, as well as a few websites that will help us write a better report and do literature reviews.

Since we are using IEEE reference, they showed us how to create reports according to it, as well as how to include references and paraphrase reports in order to avoid plagiarism and academic misconduct.

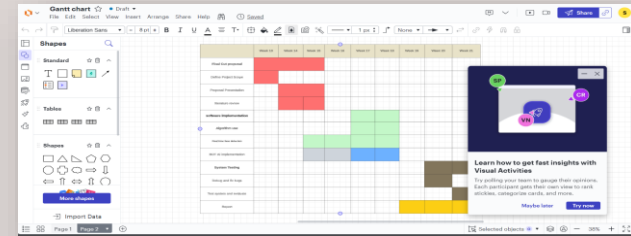


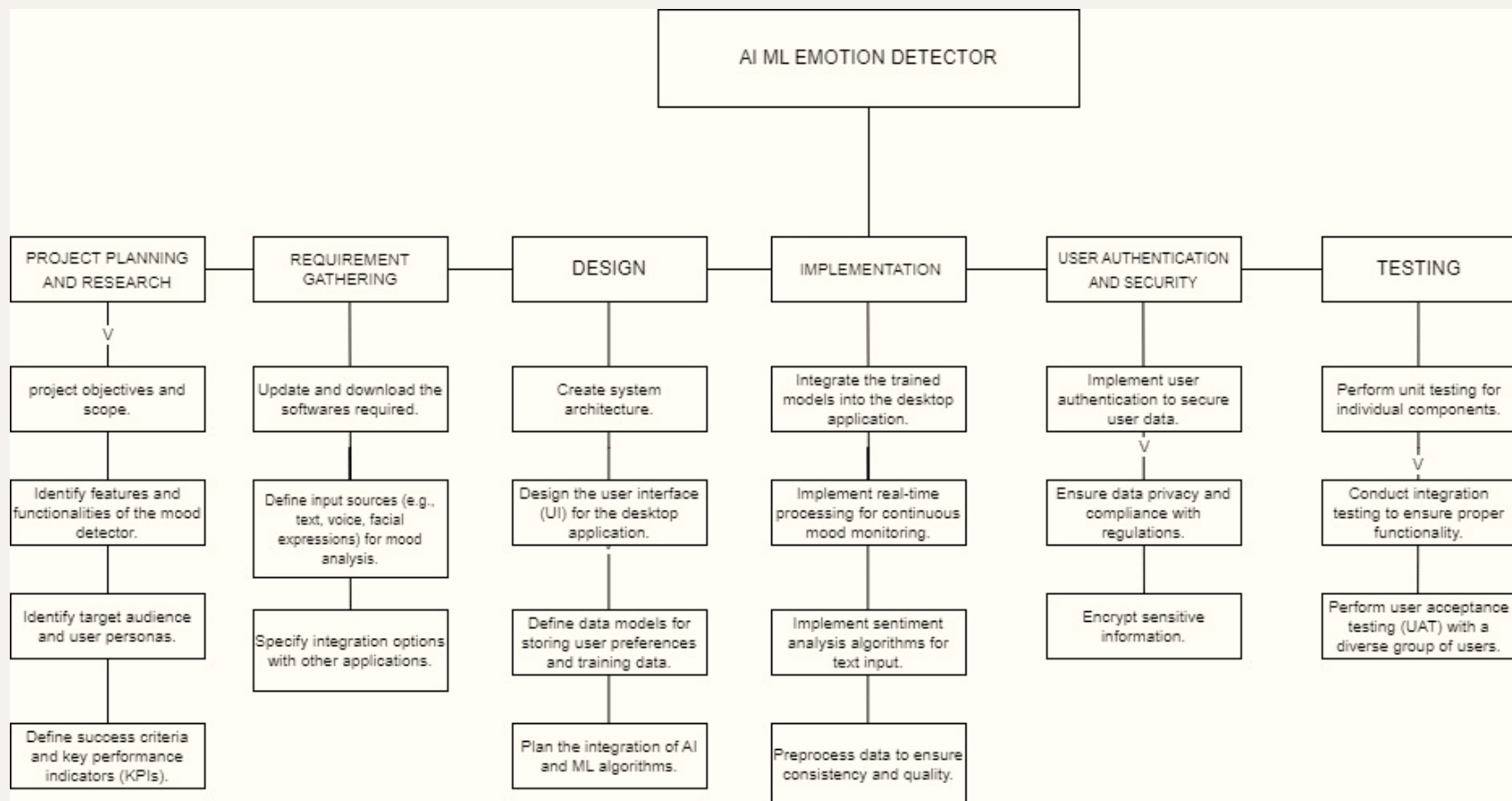
Week 15

At 5:30 Pm, I had a meeting with Dr Maha, she gave me feedback on what I must edit for Final cut proposal and My Gant chart to get her signature. She told me to edit my methodology and end results of my Gant chart.

We later spoke about my website, how I implemented HTML, CSS and JavaScript for my website. I asked her again, if the project is a good idea and if I should start doing it. she answered positively and told me to go ahead with it.

> Later this week, **I edited my blog, Gant chart, WBS, ethics form and literature review (3k words).**





Week 16

This week, Mr. Roshan spoke about Literature review / report and what all things we should be covering as topics, which includes:

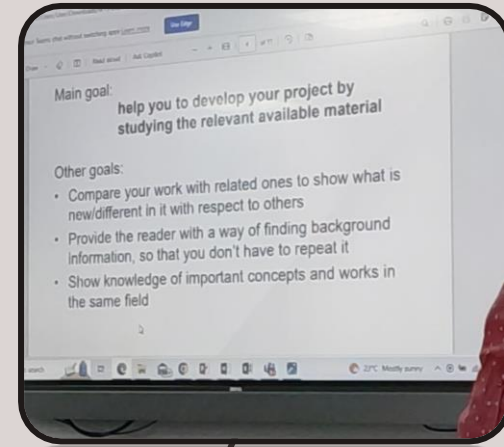
Aim and object, plan and implementation, algorithm used , result testing and valuation, critical analysis and conclusion.

I showed my literature review to Mr. Roshan and his feedback was I need to add more details regarding the algorithm

Around 1:30pm, Ms. Engie gave a session/workshop about UX/UI. We received great insights for designing user-friendly interfaces.

Designers were advised to stress intuitive navigation, visual appeal, and usability. By concentrating on user comfort, designers may improve the overall user experience and encourage good interactions..

Wireframing was introduced as an important phase in the design process. She described wireframes as skeletal constructs that outline the layout and functioning of an interface. We received practical experience in creating wireframes using Figma, a powerful and collaborative design tool.



Week 16

At 5:15, I went to meet with Dr. Maha to present her the adjustments I had made to my final cut proposal and Gant chart. I had to make another edit to acquire her signature. We discussed which method I should use for my ML-based project and why I need an ethics form. Later I had the document signed, and she read my literary review. At the end of the discussion, she advised me to fill out the study ethics application.



**Middlesex
University
Dubai**

10. Will the outputs from your research (e.g., products, reports, publications, etc.) likely cause any harm to you, others, or to society; or have legal issues? ☐ Yes ☒ No

If you have answered 'Yes' to ANY of the above questions, your application requires ethical review and approval prior to commencing your research. Please complete the 'Application for Ethical Approval for Research Projects for Students' form

If you have answered 'No' to ALL of the above questions, your application may not require ethical review and approval before commencing your research. Your research supervisor will confirm this below.

Student Signature:  Date: 7/02/24

To be completed by the supervisor:

Based on the details provided in the self-assessment form, I confirm that:	
The study does not require ethical review and approval	<input type="checkbox"/>
The study requires ethical review and approval	<input checked="" type="checkbox"/>

Supervisor Signature:  Date: 8/2/2024

Week 16



Patient Details

I started working on the software in Python and used Tkinter to create desktop applications. I designed the background, icons, and color palette for the mood detection app.

According to my Gant chart, I was supposed to start implementing software on week 17, however I started on week 16. The OPEN window features six icons: patient details, face scanner, support desk, train data, developer, and chatbot. I'm nearly done with implementing software for patient information.

> Next, use MySQL to implant a data collection including patient information.

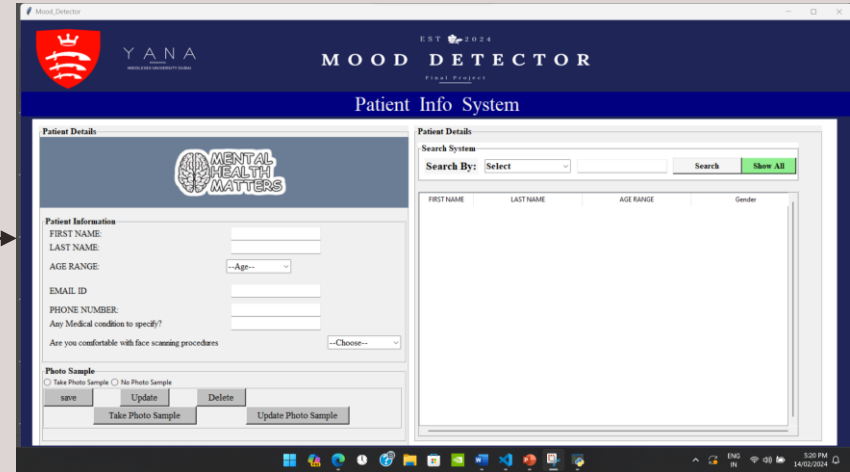
```

File Edit Selection View Go Run ... face_recognition_system
main.py x patient.py ttk.py
main.py > face_recognition_system > patient_details
1 from tkinter import*
2 from tkinter import ttk
3 from typing import Self
4 from PIL import Image,ImageTk
5 from patient import Patient
6
7
8 class face_recognition_system:
9     def __init__(self,root):
10         self.root=root
11         self.root.geometry("1530x790+0+0")
12         self.root.title("Mood Detector")
13
14 #first image
15 img1=Image.open(r"C:\Users\sulthana safeer\Desktop\face_recognition_system\
16 img1=img1.resize((500,150),Image.LANCZOS)
17 self.PhotoImage1=ImageTk.PhotoImage(img1)
18
19 f_lbl=Label(self.root,image=self.PhotoImage1)
20 f_lbl.place(x=0,y=0,width=500,height=150)
21
22 PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS
23 PS C:\Users\sulthana safeer\Desktop\face_recognition system>
24
25 master* 0 0 0 0 Ln 146,
  
```

Week 16



Patient Details



> Need to fix the alignment for save,update,delete..etc; patient details.

Week 17

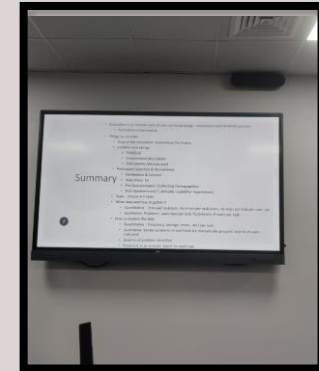
This week's class was led by Ms. Engie and Mr. Roshan.

Ms. Engie conducted a workshop on UX and Usability testing, explaining why and how it is done. Then, many forms of usability testing were discussed. There are two types of evaluations: formative and summative. Formative assessment is a continuous method of testing design components during the development process, whereas summative assessment is the final testing of the final system.

Mr. Roshan led a class on research questions, explaining how to frame a research topic.

Formative vs summative evaluation

- **Formative** evaluation seeks insight to influence design
 - **Answers the Q:** How can this system be improved?
 - check understanding of users' needs
 - check continues to meet needs
- **Summative** evaluation tests how well a final system meets requirements
 - **Answers the Q:** Is this system as good as it needs to be?
 - meets standards, e.g. ISO
 - compare with other systems
 - compare with previous versions



Week 17



Patient Details

Worked on database of the application using MySQL and connected to my tkinker application. In my Mood detector application, all the data will be saved in MySQL and will be shown in the table next to the registration box.

Tried aligning the save, update, delete buttons. Failed.

Had a meeting with Dr Maha and worked on ethical application and showed her the progress.

FIRST NAME	LAST NAME	AGE RANGE	EMAIL ID
Sulfiana	safer	17-25	saifga@gmail.com
Sulfiana	safer	17-25	saifga@gmail.com
Sulfiana	safer	20-40	saifga@gmail.com
Sulfiana	safer	13-17	saifga@gmail.com
Sulfiana	safer	17-25	saifga@gmail.com

first_name	last_name	age_range	email	phone	photo	medict	medict2
Sulfiana	safer	17-25	saifga@gmail.com	12345678	yes	yes	yes
Sulfiana	safer	17-25	saifga@gmail.com	12345678	yes	yes	yes
Sulfiana	safer	20-40	saifga@gmail.com	12345678	yes	yes	yes
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Sulfiana	safer	17-25	saifga@gmail.com	12345678	yes	yes	yes

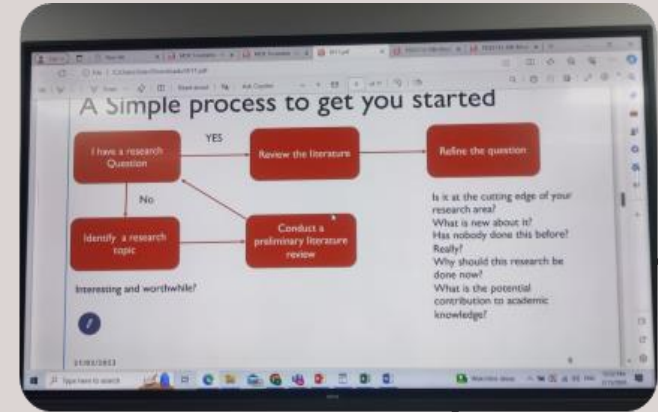


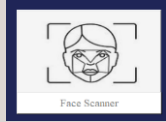
Week 18

This week our professor, At 12pm Mr. Roshan told us to focus on the UML diagrams of our projects.

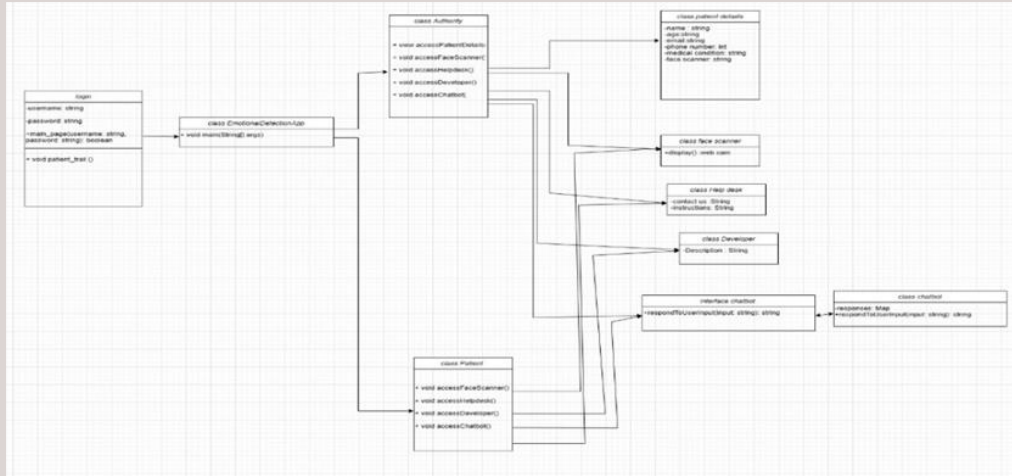
He also made us look through sample reports and comparing the similarities and how to make the reports more interactive by adding and focusing on methodologies, explanation of the code, research questions and more. I tried looking over some few samples from previous years and checked google scholars for more samples.

As per my observation, literature review and analyzing which methodology takes more understanding and time.

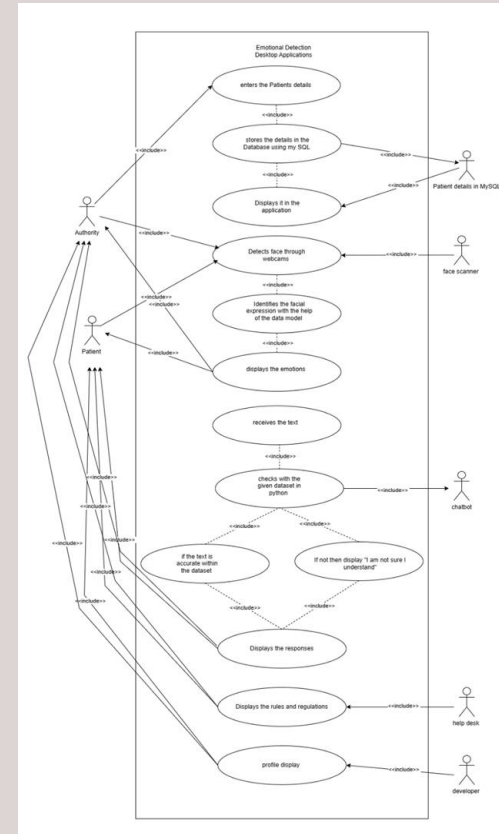




Class Diagram

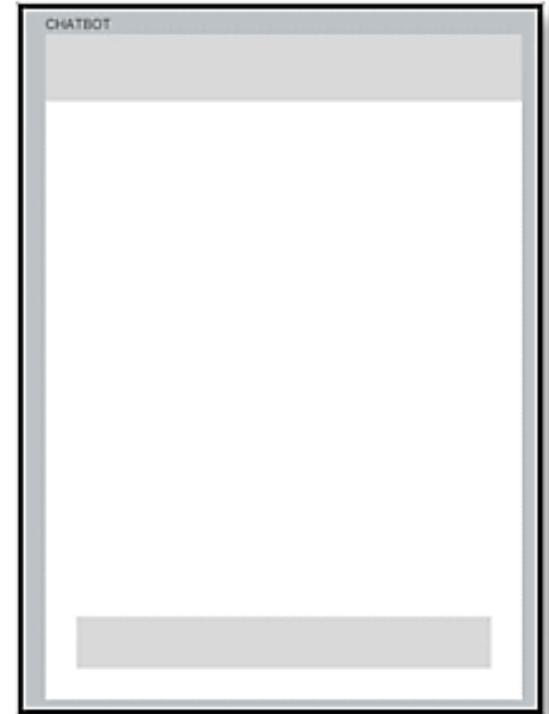
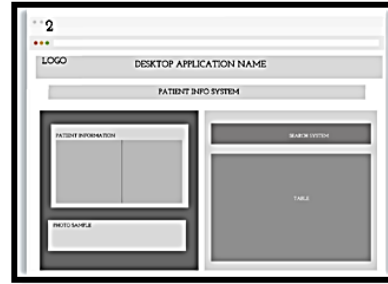
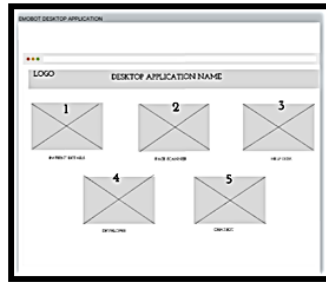


Use Case Diagram



4.3 WIREFRAME:

The following wireframe are done using Figma.

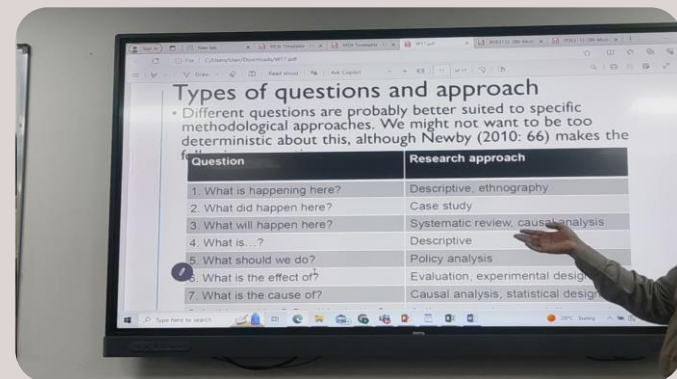


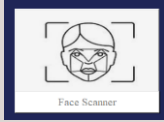


Week 19

At 11:30, Mr. Roshan focused about how important it is to choose a programming language. As I already choose my programming language which is python because its easy to implement ML codes and models. So, the lecture was useful and understanding.

He highlighted how we should choose our programming language depending on our project requirements, team expertise, scalability factors and more. Troubleshoots are often part of the coding journey and we should take it as a challenge to overcome the hurdles to get a successful project.





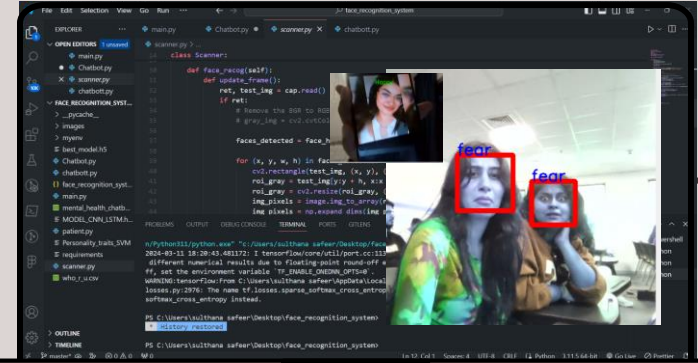
Week 19

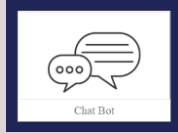
This week, I decided to work on my machine learning part of the project where I had to use, google collaboration for running the model, data sets, CNN algorithm and imported os, OpenCV, NumPy and Keras in Visual code studio. It took few days to get the scanner connected to the application as a new window but got it working at the end.

Didn't meet my supervisor this time.

After adding the code to Visual Code studios, I tested the application
With my friends.

To Work On: Add more dataset.





Week 20

This week, I decided to work on the Ai Chatbot for the application.

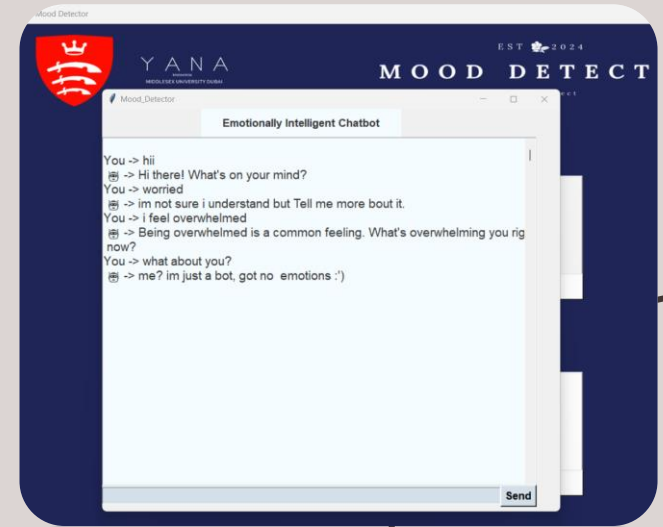
Researched few papers and worked on the functioning and how it can be implemented. But unfortunately, my visual code studio kept crashing due to the change of interpreter. I had to change my interpreter from python 3.12 to 3.11.4 because TensorFlow didn't work using 3.12. Due to the change of interpreter, and me not adding venv to the project, the python project kept crashing when I coded AI chatbot.

I downloaded the excel dataset which consist of 10k lines of code but couldn't implement it in on the project.

So, I decided to work on a normal chatbot which could be accessible and Implemented my own dataset in the code so it would give out responses.

No class, we had reading week.

Didn't meet my supervisor this time.



Week 20

Mr. Roshan told us to focus on testing and implementation this week, and work on our report.

Completed the desktop application and its functionalities. Added help desk and developers using tkinker.



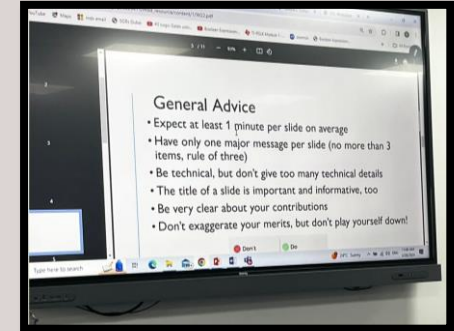
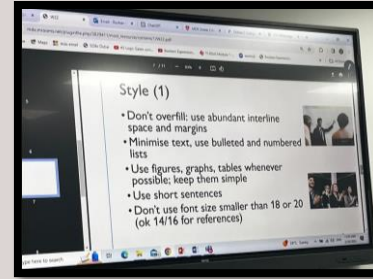
Dr. Maha told me to start working on my report.

[illegible]

Week 22

Mr. Roshan told us to work on report this week and complete our blog for submission. He also explained about the ethical concerns and copyrights for the project perspective. He also gave us advices on how to do our presentation so that we don't stress.

This marks as the end of the blog for PDE 3112.



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