

Mood Recognition and Recommendation System

UCS503 Software Engineering Project Report End-Semester Evaluation

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Group No: CO11

Submitted To

Name of Faculty: Sumit Kumar

Designation of Faculty: Assistant Professor



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1. Project Selection Phase

Software Bid/ Project Teams

Group: 3COE11

Dated: 10th August 2022

Team Name: The B Team

Team ID (will be assigned by Instructor): Alpha 1

Please enter the names of your Preferred Team Members:

- You are required to form **three to four-person** teams.
- Choose your team members wisely. You will not be allowed to change teams.

Name	Roll No	Project Experience	Programming Language used	Signature
Aaditya Bhatnagar	102003267	SIH: Rozgar.com (Job Recommender), Scaler Hackathon: VibeIn (Mood Uplifter)	HTML, CSS, JS, React.JS	
Atulya Vaibhav Rai	102053035	Smart Calculator	Python (Tkinter Library)	
Riya Kapoor	102053016	Scaler Hackathon: VibeIn (Mood Uplifter), Airline Reservation System	HTML, CSS, JS, Python, MySQL	
Vishal Sehgal	102003265	SIH: Rozgar.com (Job Recommender), Scaler Hackathon: VibeIn (Mood Uplifter)	HTML, CSS, ML, DL, MongoDB, Node.JS, Express.JS	

Programming Language / Environment Experience

List the languages you are most comfortable developing in, **as a team**, in your order of preference. Many of the projects involve Java or C/C++ programming.

1. MERN (MongoDB, Express.JS, React.JS, Node.JS)
2. Python Libraries (Sklearn and Tensorflow)
3. Python Frameworks (Django and Flask)

Choices of Projects:

Please select **4 projects** your team would like to work on, by order of preference: [Write at least one paragraph for each choice (motivation, reason for choice, feasibility analysis, etc.)]

First Choice	Mood Recognition and Recommendation System for Mood Uplifting. Many people around are being diagnosed with mental health issues. We wanted to create something regarding that. We decided to make a mood recognition and uplifting system. <i>Feasibility Analysis:</i> Requires knowledge and research in the fields of ML & DL for the detection of the mood and recommending activities for uplifting their moods. It also requires knowledge of basic web development for building the user interface. It's a solution with zero cost.
Second Choice	Bus Pass Issuing System for Day Scholars (currently for TIET only). Students need to undergo a period of nearly one week for issuing of the PRTC bus pass. We wanted to semi-automate this process by introducing software and making it faster. <i>Feasibility Analysis:</i> Requires good knowledge of various Full Stack Frameworks such as Node.JS, Express.JS, React.JS, etc. Requires extensive time and hard work to build. It's a solution with zero cost.
Third Choice	Attendance through Face Recognition. Teachers waste 5-6 mins for taking attendance and even though there is no 100% guarantee of proxy-free attendance in a large class. We decided to build an attendance-taking system using face recognition with instant updation in the web kiosk. <i>Feasibility Analysis:</i> Requires knowledge of ML and DL and various full-stack frameworks such as React.JS, Express.JS, Node.JS, etc.
Fourth Choice	Webkiosk 2.0. To improve the user experience and the design of the existing web kiosk of Thapar. We also wish to work on server processing for faster data delivery. <i>Feasibility Analysis:</i> Requires good knowledge of various Full Stack Frameworks such as Node.JS, Express.JS, React.JS, etc. Requires extensive time and hard work to build. It's a solution with zero cost.

Additional Remarks/ Inputs

Please tell us about any other factors that we should take into consideration (e.g., if you really would like to work on a project for some particularly convincing reason).

Sol: The first project can be finished in the period of one semester. We really wish to expand ourselves in the field of ML, DL, and Image Processing. The project is very much scalable and can be expanded in the future. As the field of psychology is also growing, we as developers also wish to contribute to it.

2. Planning Phase

PROJECT WRITE UP

The B Team

1. OVERVIEW

Mood Recognition and Recommendation System is an integrated system where an individual's mood can be detected, and recommendations for mood upliftment can be given. Our system is a website wherein a user can register and get an auto-recommendation based on the user's previous b moods. Our goal is to present curated content and a user interface that can alleviate the user's perspective, improving their mental health and mood dysregulation problems. We ensure that the user's data privacy is maintained and the user has a pleasant experience after visiting our website.

2. PROJECT REQUIREMENTS

2.1. Functional Requirements

1. To be able to access the webcam to determine the user's facial expressions through real-time videos.
2. To be able to access the internet for connectivity with the servers.
3. To be able to access the mood recognition server which includes the recognition server, recommendation server, and MongoDB server.
4. To be able to access the database for crud operations.
5. The mood-detection system shall properly classify happiness, sadness, anger, surprise, and confusion.
6. The mood-detection system shall automatically save a configuration of the system based on a training set.
7. The mood-detection system shall recognize when no user is present.
8. It should be able to handle mpv4 format for recognition through videos.

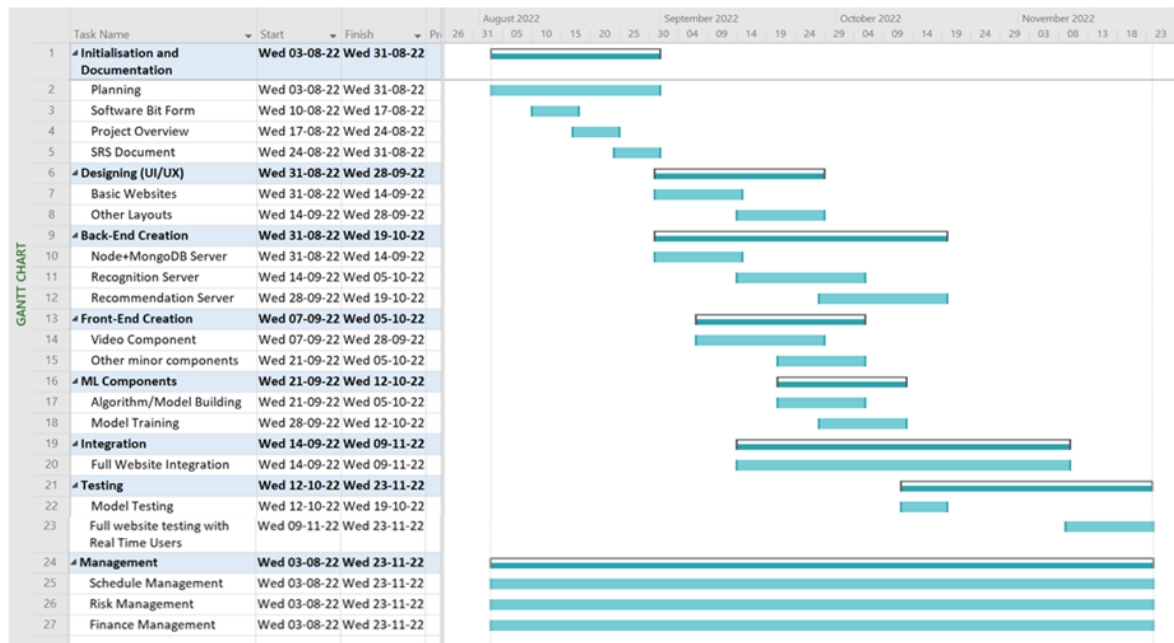
2.2. Non-Functional Requirements

1. To be able to create an account
2. To be able to access the recommendation system after the detection of the mood.
3. To be able to authenticate the user before recommending the system.
4. Shall output emotion chart
5. Shall Track user
6. Another issue faced by this technology is when detecting emotions from people of different colors. There are models that detect more anger in black people. This means that training sets need to be more diverse.
7. The mood-detection system shall operate with accuracy equivalent to the modern standards for the implementation being used.
8. The mood-detection system shall be hardware agnostic, so that different cameras may be used.

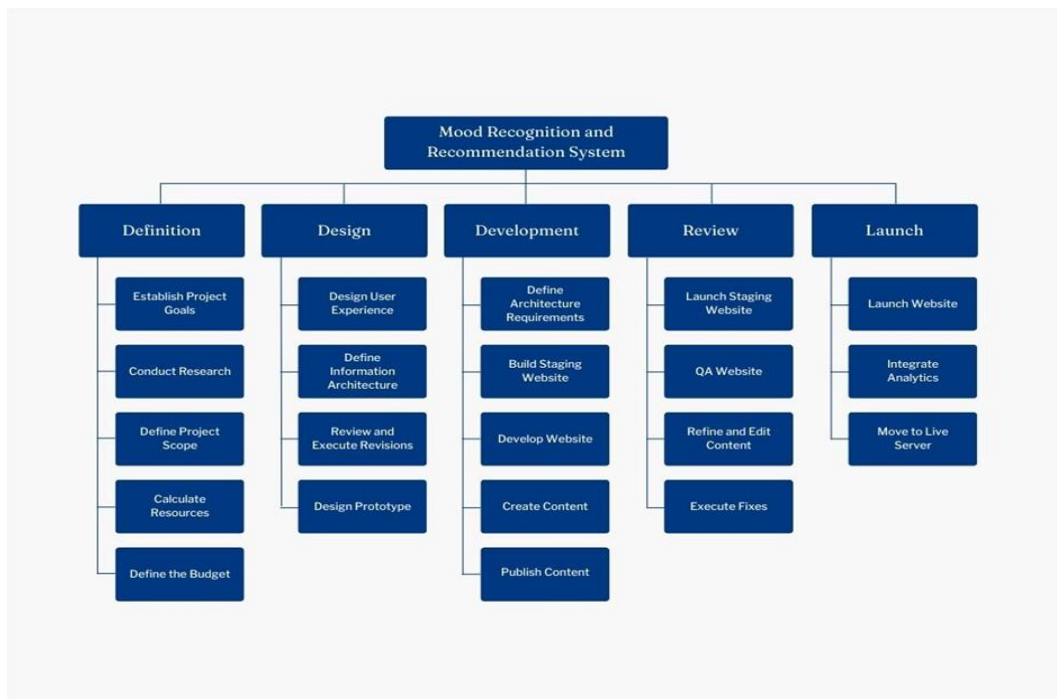
3. FEASIBILITY ANALYSIS

1. **Schedule Feasibility**: The project is scheduled to be completed in the time span of 3 months including planning, research, design, implementation, and follow-up.
2. **Technical Feasibility**: We have decided to make our system a web portal. Our system makes use of two servers, one is a flask server for recognition and recommendation system and the other is a Node.JS server for login/register. We are making use of MongoDB to fulfill our database requirements. For Frontend, we make use of the React.JS framework and CSS.
3. **Economical Feasibility**: Our system requires zero building cost.
4. **Operational Feasibility**: All the working of the system depends upon the accuracy of the model to be made. The better the accuracy of the model, the better the performance of our system comes out to be. Further, our site will focus on providing mood upliftment 24/7 working hours upon deployment.
5. **Legal Feasibility**: Our system only stores the previous mood of the user and the password for the user will be hashed which means the original password will remain unknown to the Database admin too. The permission for the storage of the previous mood of the user will be asked in the terms and conditions of the user during registration.
6. **Cultural/Behavioural Feasibility**: Our system focuses on mood upliftment and we guarantee that no such kind of activities or content is recommended to a person which leads to cultural issues. Our system may lead to behavioral change in the user in a positive way for mood upliftment.

4. GANTT CHART

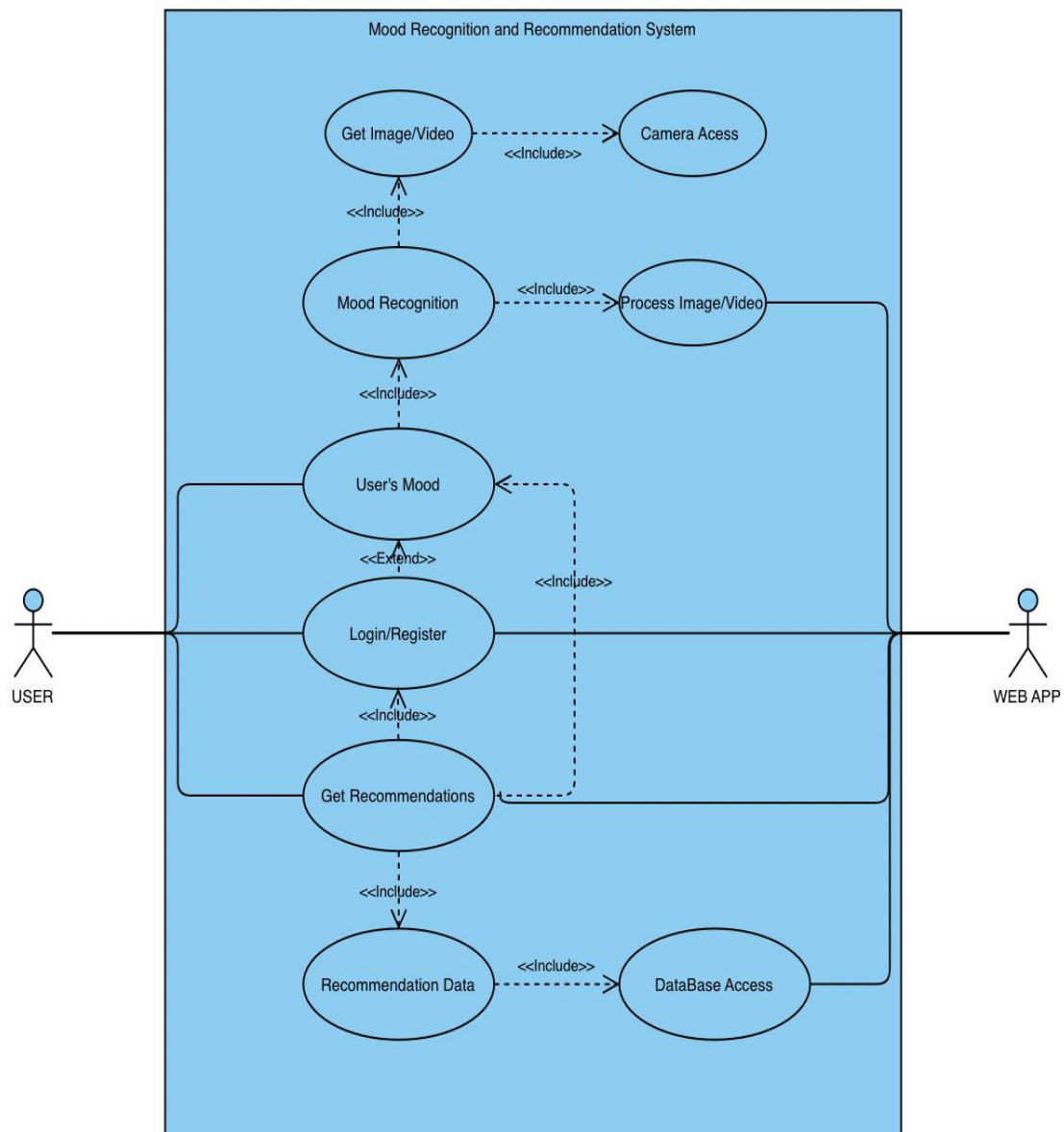


5. WBS (Work Breakdown Structure)



3. Analysis Phase

3.1. Use Case Diagram



3.2. Use Case Scenario

1. Use Case Title	Register
2. Abbreviated Title	Register
3. Use Case ID	4
4. Actors	User
5. Description New users can register themselves as customers using the register feature by providing valid login credentials and other information.	
5.1 Pre Conditions 1. Customers ID should be unique	
5.2 Task Sequence 1. Click on Sign In/Register button. 2. Fill out all the columns with relevant information. 3. Click submit button.	
5.3 Post Conditions 1. Customer can now login into his/her account with registered credentials.	

1. Use Case Title	Login
2. Abbreviated Title	Login
3. Use Case ID	5
4. Actors	User
5. Description Users who have already registered can login into their accounts.	
5.1 Pre Conditions 1. Users should have registered account.	
5.2 Task Sequence 1. Go to the login page. 2. Enter your credentials. 3. Click on login button.	
5.3 Post Conditions 1. Users will be logged in to their accounts if their credentials are valid. 2. Error message will be displayed if customer has entered wrong credentials	

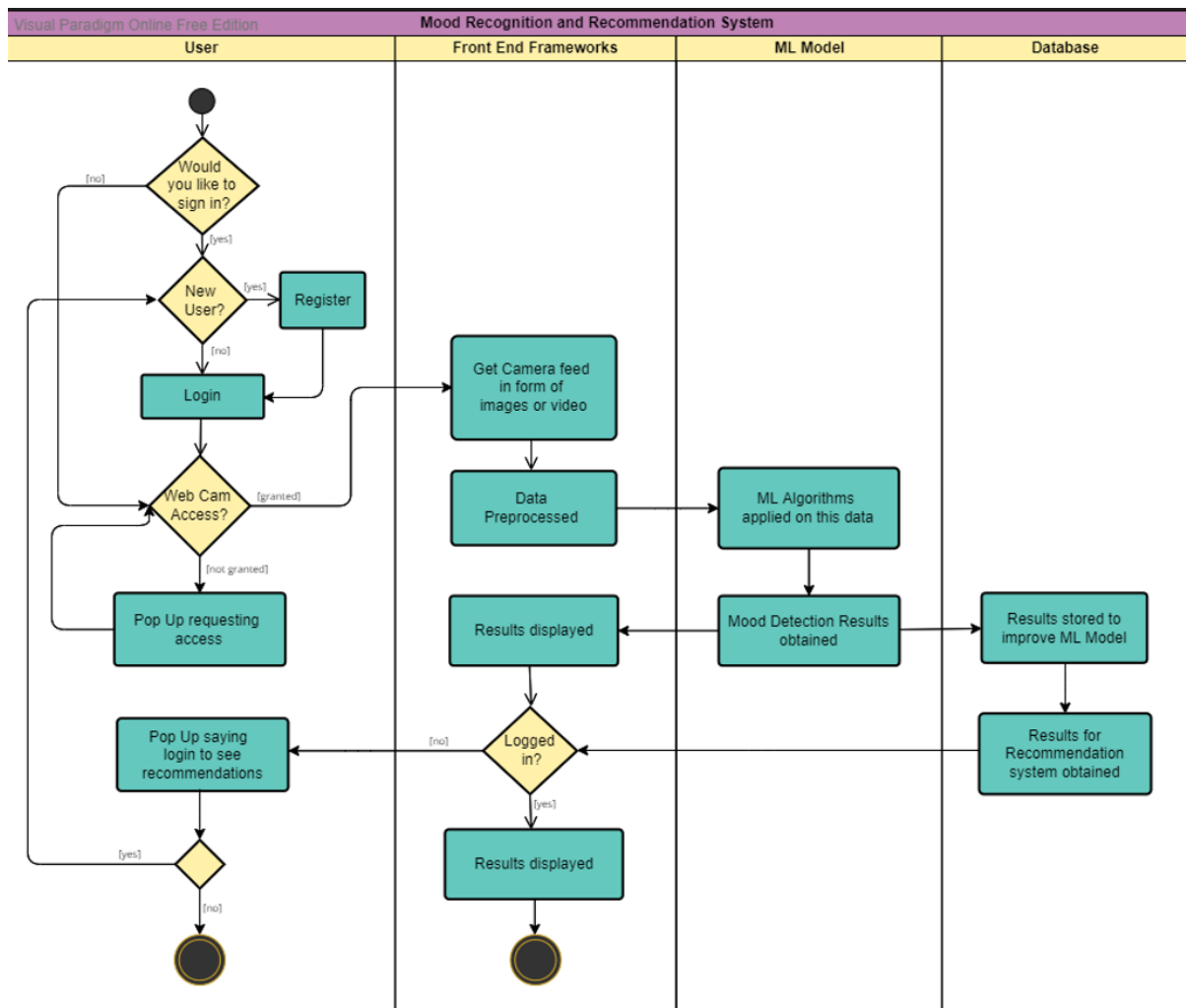
1. Use Case Title	Get recommendations
2. Abbreviated Title	Get recommendations
3. Use Case ID	6
4. Actors	User
5. Description When the user's mood get detected, the user get personalized recommendations to uplift the mood if the mood detected is negative.	
5.1 Pre Conditions 1. Users should have logged in into his/her account. 2. Users mood should have been detected by the application.	
5.3 Task Sequence 1. After getting the mood detected click on get recommendations . 2. Browse through the different categories of activities which can uplift your mood. 3. Click on the specific game, activity, video etc.	
5.3 Post Conditions 1. User can now listen to video, play a game, watch a movie etc.	

1. Use Case Title	Mood recognition
2. Abbreviated Title	Mood recognition
3. Use Case ID	2
4. Actors	User
5. Description All users whether registered or unregistered can detect their current mood by using the camera of their machine to capture a photo/video of their face.	
5.1 Pre Conditions 1. Users should have an active internet connection. 2. Users should have a camera attached to their machine.	
5.4 Task Sequence 1. Go to the home page. 2. Click on capture mood button. 3. Allow camera access so that photo/video can be captured. 4. Wait for a few seconds and you will get your mood recognized.	
5.3 Post Conditions 1. Users can now get recommendations on the basis of mood predicted after logging in. 2. Error message will be displayed if the mood is not detected.	

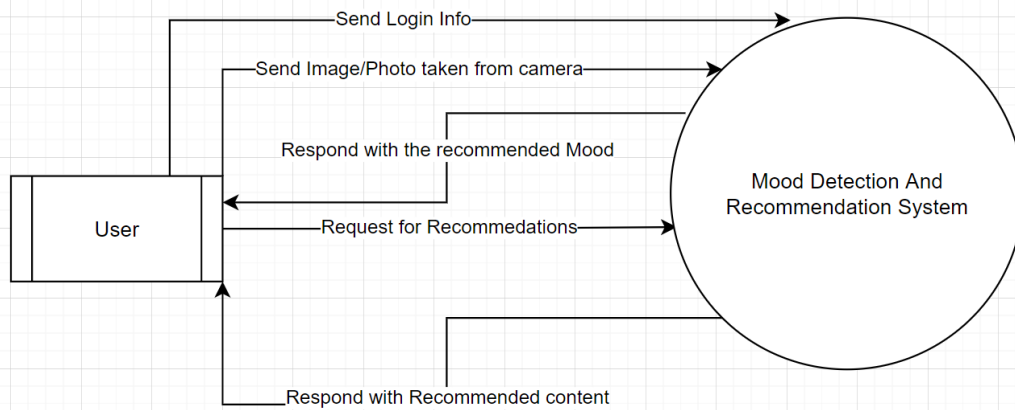
1. Use Case Title	User's mood
2. Abbreviated Title	User's mood
3. Use Case ID	3
4. Actors	User
5. Description Users can get their mood predicted through AI.	
5.1 Pre Conditions 1. User should have a camera. 2. User should have an active internet connection.	
5.5 Task Sequence 1. Go to the home page. 2. Click on detect mood and see your current mood.	
5.3 Post Conditions 1. Users can see the various recommendations from by logging in. 2. Error message will be displayed if the mood is not detected.	

1. Use Case Title	Get Image/Video
2. Abbreviated Title	Get Image/Video
3. Use Case ID	1
4. Actors	Users
5. Description The application extracts the images/video from the user's camera and displays the predicted mood.	
5.1 Pre Conditions 1. Users should have a camera. 2. User should have an active internet connection.	
5.6 Task Sequence 1. Go to the home page. 2. Click on detect mood. 3. Get the mood recognized.	
5.3 Post Conditions 1. User can then login and see the recommendations for to uplift the mood. 2. Error message will be displayed if the mood is not detected.	

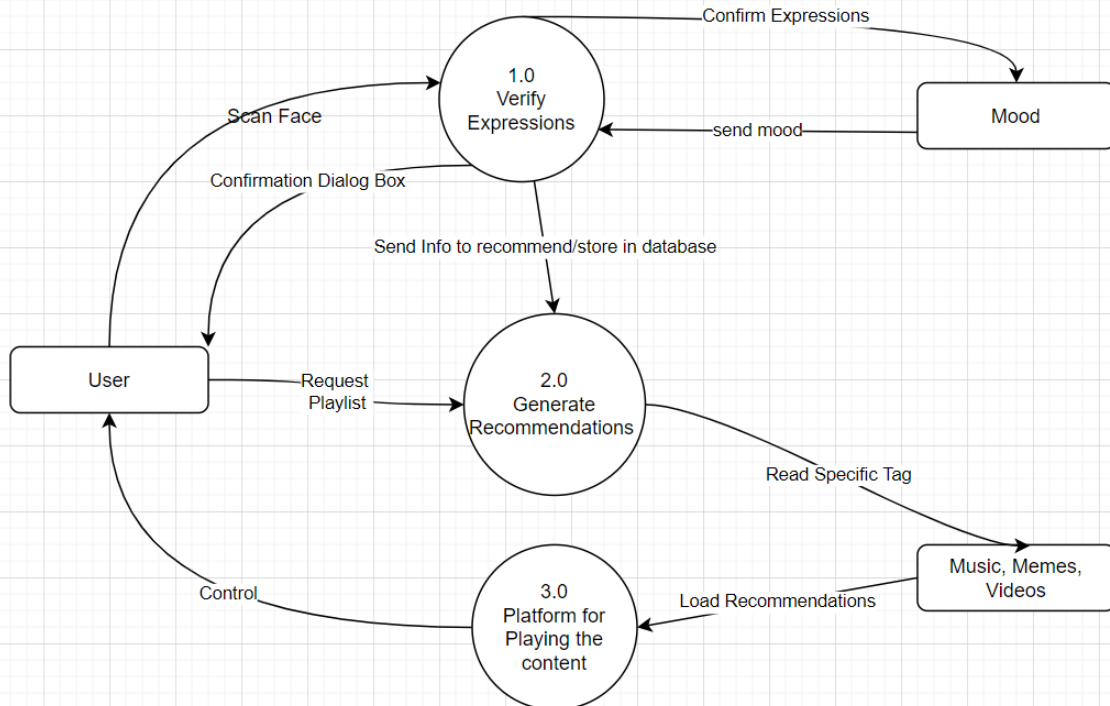
3.3. Swimlane Diagram



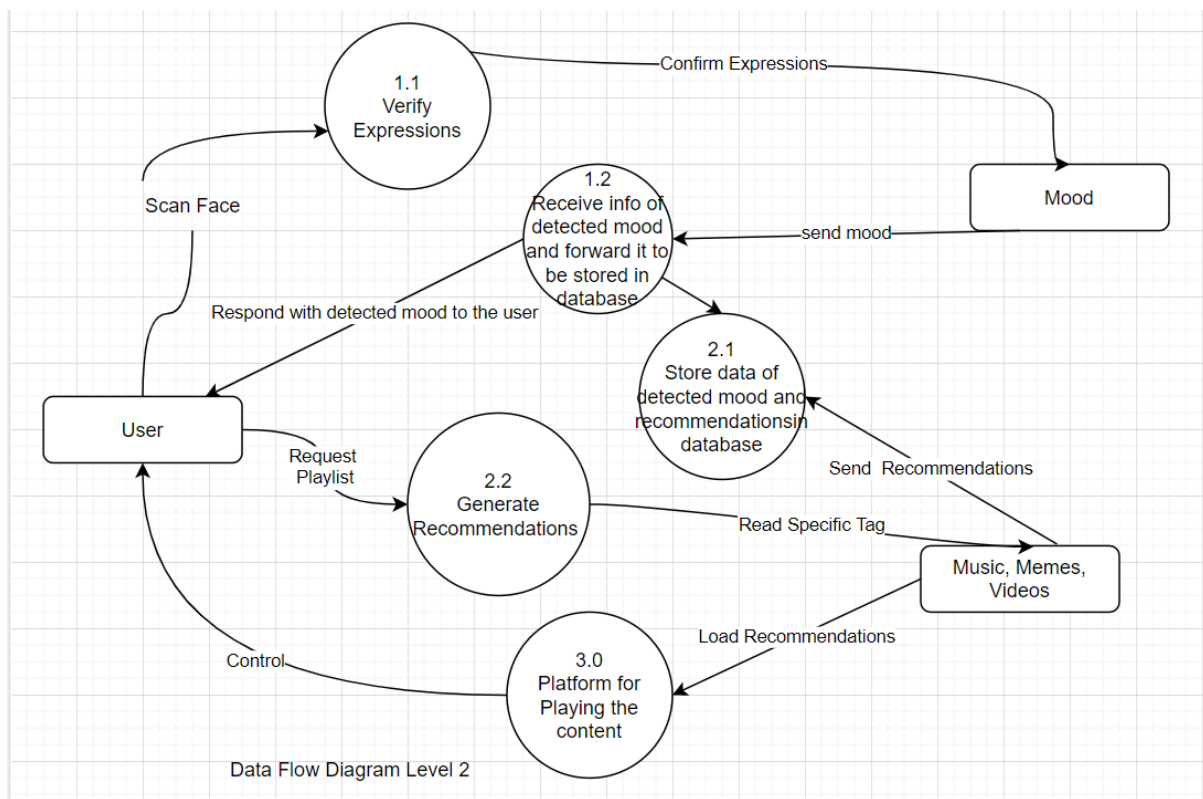
3.4. Data Flow Diagrams (DFDs)



Level 0 Data Flow Diagram



Data Flow Diagram Level 1



3.5. Software Requirements Specifications (SRS) in IEEE Format

Version 1.0

Mood Recognition and Recommendation System

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1. Introduction

1. Purpose of this Document

The purpose of this SRS document is to provide information about the functionalities of the project, its hardware and software requirements, and how the software will synchronize with the database. It is a detailed description of everything that pertains to the project and aims to describe what the project does and how it performs various functions. This document is an attempt for the target audience i.e., the students to understand everything about the project and its parameters so that they can utilize it efficiently. The product specified in this SRS document is a mood recognition and recommendation system.

2. Scope of the Development Project

The scope of this project is to target the people of today's generation having problems related to mental health. This project can be used in the workspace of various companies for the employees to refresh themselves when they have overworked or feeling low. This can also be used by people when they are stressed by their daily routine work and the websites act as a therapy for the users.

Emotion detection recognition (EDR) is a method used for the detection and recognition of human emotions with the incorporation of technological capabilities, such as facial recognition, machine learning, and pattern recognition. The study under consideration explores the global market for both EDR software and services that are capable of recognizing basic emotions (anger, contempt, disgust, fear, joy, sadness, and surprise).

Our system aims to predict the emotion of an individual which will be along with giving input by the end user in which the end user will be asked whether they want to listen to songs according to their current mood or for the betterment of their mood which will be followed by playing songs over YouTube. Other recommendations include memes. Our pure system takes the consideration of the respective individual mood i.e. Happy, Sad, Angry, Neutral, or Surprise.

Serial No.	Term	Definition
1	Interface	When referring to software, an interface is a program that allows a user to interact with computers in person or over a network. An interface may also refer to controls used in a program that allows the user to interact with the program.
2	Website	This is a set of related web pages located under a single domain name, typically produced by a single person or organization
3	Server	A server is a computer program or device that provides a service to another computer program and its user, also known as the client.
4	Facial Recognition System	A facial recognition system is a technology capable of matching a human face from a digital image or a video frame against a database of faces, typically employed to authenticate users through ID verification services, and works by pinpointing and measuring facial features from a given image.
5	Recommendation System	A recommender system, or a recommendation system (sometimes replacing 'system' with a synonym such as a platform or an engine), is a subclass of information filtering systems that provide suggestions for items that are most pertinent to a particular user.
6	Flask	Flask is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions.

Serial No.	Term	Abbreviation
1	HTML	Hyper Text Markup Language
2	CSS	Cascading Style Sheet

3	NLP	Natural Language Processing
4	IEEE	Institute of Electrical and Electronics Engineers
5	UI	User Interface
6	ER	Entity Relationship Diagram
7	OS	Operating System
8	CNN	Convolutional Neural Network
9	RNN	Recurrent Neural Network
10	BERT	Bidirectional Encoder Representations from Transformers

3. References

- [1]. “Interface”[Online]
Available:
[https://en.wikipedia.org/wiki/Interface_\(computing\)](https://en.wikipedia.org/wiki/Interface_(computing))
- [2]. “Website” [Online]
Available:
<https://www.merriam-webster.com/dictionary/website>
- [3]. “Server” [Online]
Available:
<https://en.wikipedia.org/wiki/Server>
- [4]. “Sentiment” [Online]
Available:
<https://en.wikipedia.org/wiki/Sentiment>
- [5]. “Facial Recognition System” [Online]
Available:
https://en.wikipedia.org/wiki/Facial_recognition_system
- [6]. “Flask” [Online]
Available:
[https://en.wikipedia.org/wiki/Flask_\(web_framework\)](https://en.wikipedia.org/wiki/Flask_(web_framework))

4. Overview

Mood Recognition and Recommendation System is an integrated system where an individual’s mood can be detected, and recommendations to uplift the mood can be given. Our system is a website wherein a user can register and get an auto-recommendation based on the user’s previous moods. Our goal is to present curated content and a user interface that can alleviate the user’s perspective, improving their mental health and mood dysregulation problems. We ensure that the user’s data privacy is maintained and the user has a pleasant experience after visiting our website.

2. Overall Description

1. Product Perspective

Human emotions can be broadly classified as fear, disgust, anger, surprise, sad, happiness, and neutral. A large number of other emotions such as cheerful (which is a variation of happiness) and contempt (which is a variation of disgust) can be categorized under this umbrella of emotions. These emotions are very subtle. Neural networks and machine learning have been used for these tasks and have obtained good results. Machine learning algorithms have proven to be very useful in pattern recognition and classification, and hence can be used for mood detection as well.

With the development of digital music technology, the development of a personalized music recommendation system that recommends music for users is essential.

People often use music, memes, and video clips as a means of mood regulation, specifically to change a bad mood, increase energy levels or reduce tension. Also, consuming the right kind of digital content at the right time may improve mental health. Thus, human emotions have a strong relationship with them.

The software will make use of CNN/OpenCV to detect the mood of the user and perform correlation analysis using RNN/BERT in order to recommend content to the user which will help in the regulation of their mood.

2. Product Functions

The product should be able to perform the following operations:

1. The software would take login information from the user.
2. We would store the login information in a database
3. We'll request access to the user's webcam and upon getting access get the camera feed in the form of images or videos.
4. We'll use our CNN/OpenCV to process the images and detect the mood of the user. We'll store this information in our database to further improve model
5. We'll present the user with the mood that we detected and ask the user if we should recommend curated content to alleviate their mood.
6. If the user agrees then our recommender system which uses RNN/BERT to perform correlation analysis and present the user with recommended content from its database in the form of memes, videos, and music to help the user better regulate their mood.

3. User Characteristics

The main purpose behind designing the sentiment analysis is to help people understand their moods and state of mind and make an attempt at helping them regulate their moods as in this modern age people are faced with a lot of mental health issues.

Mood Recognition and Recommendation System is an integrated system where an individual's mood can be detected, and recommendations for mood upliftment can be given. Our system is a website wherein a user can register and get an auto-recommendation based on the user's previous moods. Our goal is to present curated content and a user interface that can alleviate the user's perspective, improving their mental health and mood dysregulation problems. We ensure that the user's data privacy is maintained and the user has a pleasant experience after visiting our website.

As one can see from the list, each user will have a different educational background and expertise level in using the system. Our goal is to develop software that should be easy to use for all types of users, including the information managers of various businesses. Thus while designing the software one can assume that each user type has the following characteristics:

The user is computer-literate and has little or no difficulty in using the website and knows how to provide access to their webcam.

4. General Constraints, Assumptions, and Dependencies

1. Users must enter their correct information when registering to perform actions on the website.
2. The system is only compatible with all devices that have a webcam..
3. The system would be available 24 hours a day.
4. Presently, the website can handle up to 1000 user visits at a time. More users simultaneously logging in can potentially result in a server crash, and users may face issues logging in.

5. Apportioning of requirements

The Twitter Sentiment Analysis is to be implemented in the following two phases:

- i. Pilot Phase: In this phase, the system will be implemented on tweets with up to 100 comments so with appropriate accuracy.
- ii. Full deployment: Following the successful completion of the pilot phase, we will deploy the system to work with tweets up to 10000 comments within a predefined time for each session. Accuracy has to be improved with every new session.

3. Specific Requirements

1. External Interface Requirements

The following list presents the external interface requirements:

- The product requires very limited graphics usage with just a simple keypad for taking the user input.
- The product does not require the usage of sound or animation. The hardware and operating system require a screen resolution of not more than 320 x 240 pixels (owing to the small form factor).
- Web page components like fonts, buttons, graphics, models, etc. are designed to be minimalistic and quick to provide a swift UX
- Modules will be kept light in space so that they won't take a long time to load.
- Animations and transitions may be implemented in the future with popular frameworks like Framer Motion.
- The web application supports all modern-day browsers that support JavaScript.

2. Detailed Description of Functional Requirements

Table 3 shows a template that I'll be using to describe functional requirements:

3.2.1: Functional requirements for login/registration screen

Purpose	This screen helps the already existing users to login into the portal and also helps the new users to set up an account for themselves.
Inputs	The users can enter their login credentials with the help of a simple keypad.
Processing	The website connects to the database and searches for the matching set of login credentials entered by the user.
Outputs	Upon successful authentication of credentials, the website then takes the user to the next page. Also, if the entered credentials are wrong, it displays a message that the entered credentials are incorrect.

3.2.2: Functional Requirements for mood recognition

Purpose	This screen will provide an interface for the user to recognize his/her mood and provide data to the recommendation system for further use.
Inputs	An image is scanned with the help of the user's access to the camera.
Processing	We will use CNN/OpenCV for the processing of the image provided by the user at that instant and will recognize the mood and send the mood further to the recommendation system to generate recommendations for the user.
Outputs	Upon a successful recognition of mood, a different kind of user interface is generated and recommendations are made through the system for the mood upliftment of the user.

3.2.3: Functional Requirements for recommendation page

Purpose	This screen will provide an interface for the user to display the recommendations to the user for mood upliftment.
Inputs	The mood detected from the mood detection page is provided as input to this page.
Processing	The recommendation system makes use of correlation analysis and RNN/BERT models in order to predict which type of content should be provided to the user in order to uplift his/her mood.
Outputs	The recommendation system will provide three things for mood upliftment: music links, youtube video links, and memes on the basis of the mood of the user.

3. Performance Requirements

- **Response time:** The software will be able to recognize the mood of the user within 1-2 seconds and will give recommendations in accordance with that in a matter of seconds.
- **Workload:** The software system must ensure that every mood is recognized in a matter of seconds to depict a smooth user interface and experience. Also, 1000 people can use our website at the same time.
- **Scalability:** It is ensured that the website shall be capable of supporting more people and we will also increase the different types of recommendations rather than video, music, and memes gradually. Software shall be compatible enough to run on various operating systems and web browsers when implemented into a suitable production environment with its successive versions.

4. Logical Database Requirements

Figure 3 shows the E-R diagram for the entire system.

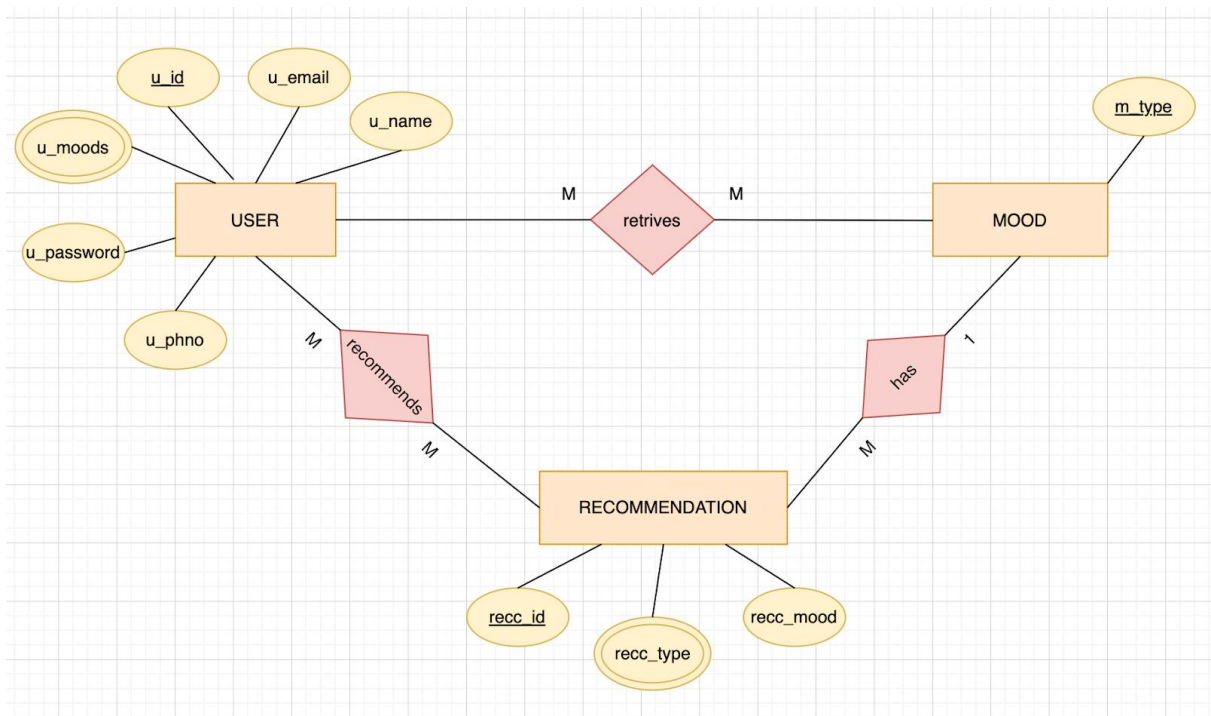


Figure 3: E-R Diagram for the Twitter Sentiment Analysis

5. Quality Attributes

- 1. Performance:** Each page of the website must load within 4 seconds. Also, the software should be able to analyze 100 comments per second.
- 2. Availability:** It must be accessible to all the people accessing the website 24*7. The website should be regularly updated to keep bugs at bay.
- 3. Security:** The website will not grant access until the user sets a strong password.
- 4. Reusability:** The website must reuse the header and footer, that is, on every page of the website, the user sees the same options in the header and footer. Moreover, the login feature used in this website can also be used by the developers on other websites and web pages.
- 5. Modifiability:** The website must be designed in such a way that it should be easy to make changes as it is scaled onto successive versions. No pages of the website would contain too many images or animations. Content should be placed such that it is easy for users to read, interpret and remember.

6. Scalability: The system must be scalable enough to support 1000 visits at the same time while maintaining optimal performance. The system should be able to analyze up to 5000 comments to a particular tweet.

6. Other Requirements

None at this time

4. Change History

200209	Version 1.0 – Initial Release

5. Document Approvers

SRS for “Mood Recognition and Recommendation System” is approved by:

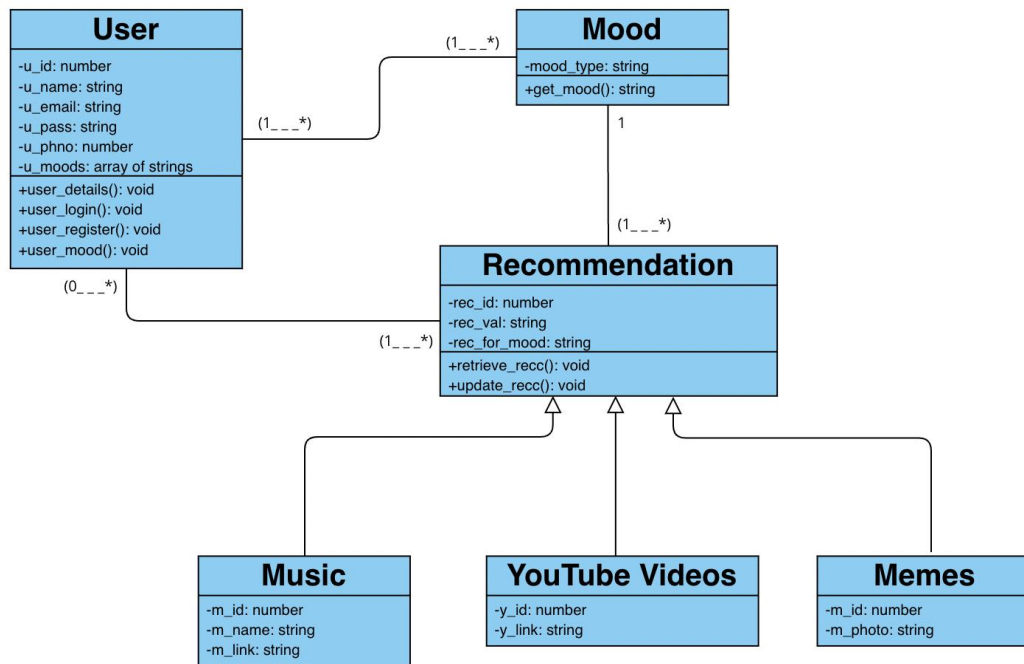
(Dr. Garima Singh)

Designation: Assistant Professor

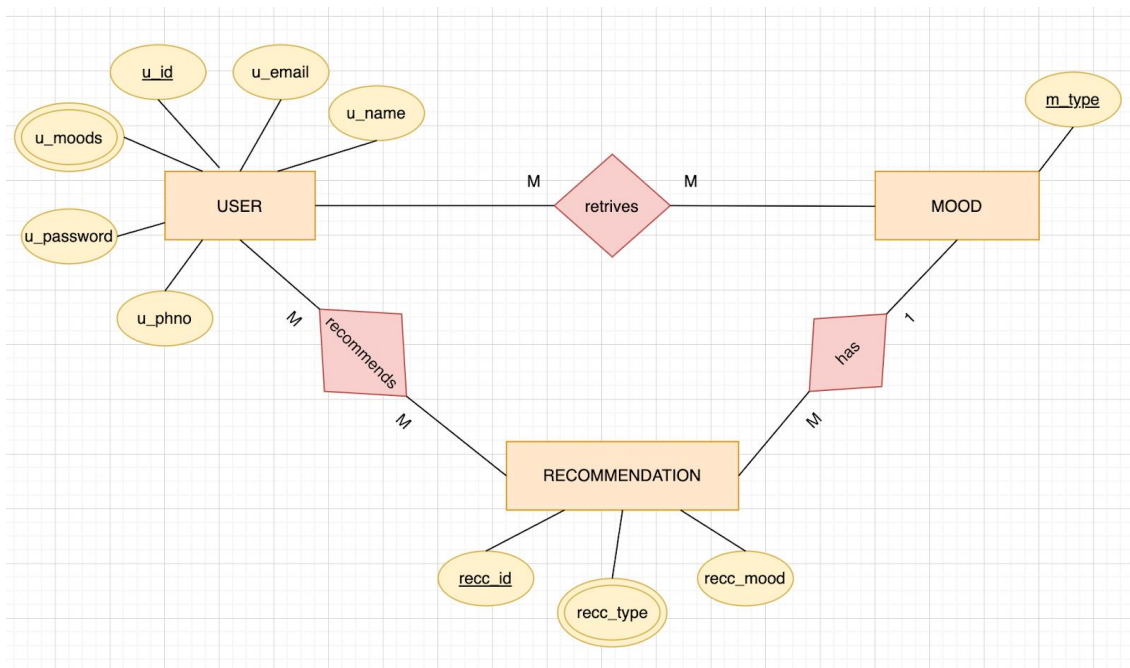
Date: 16 September 2022

4. Design Phase

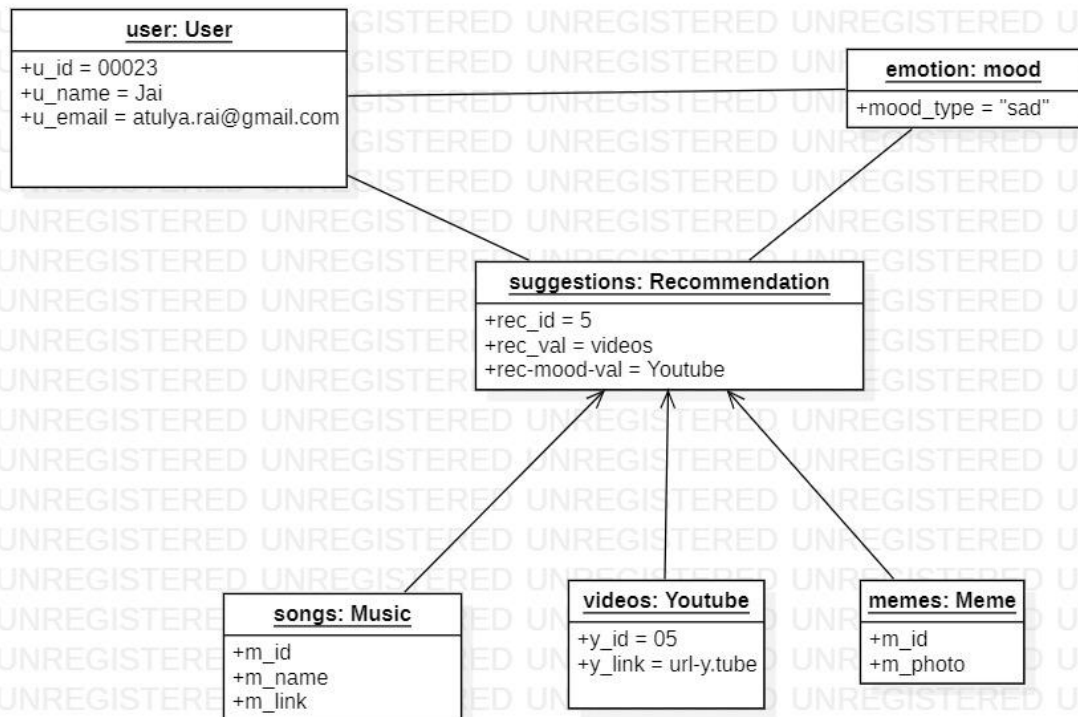
4.1. Class Diagram



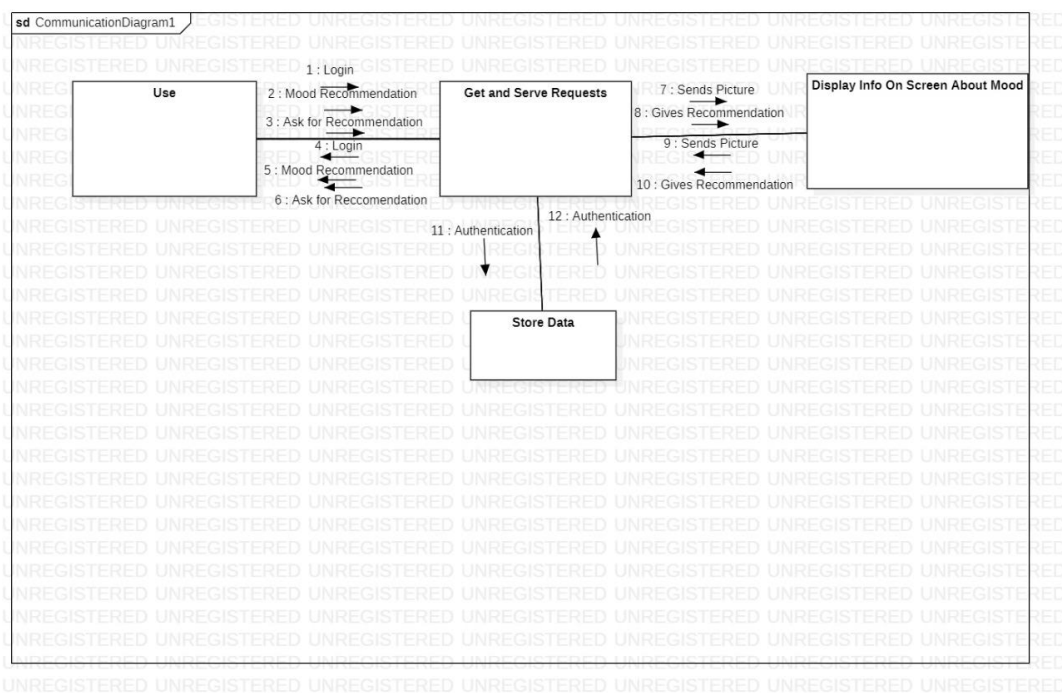
4.2. ER Diagram



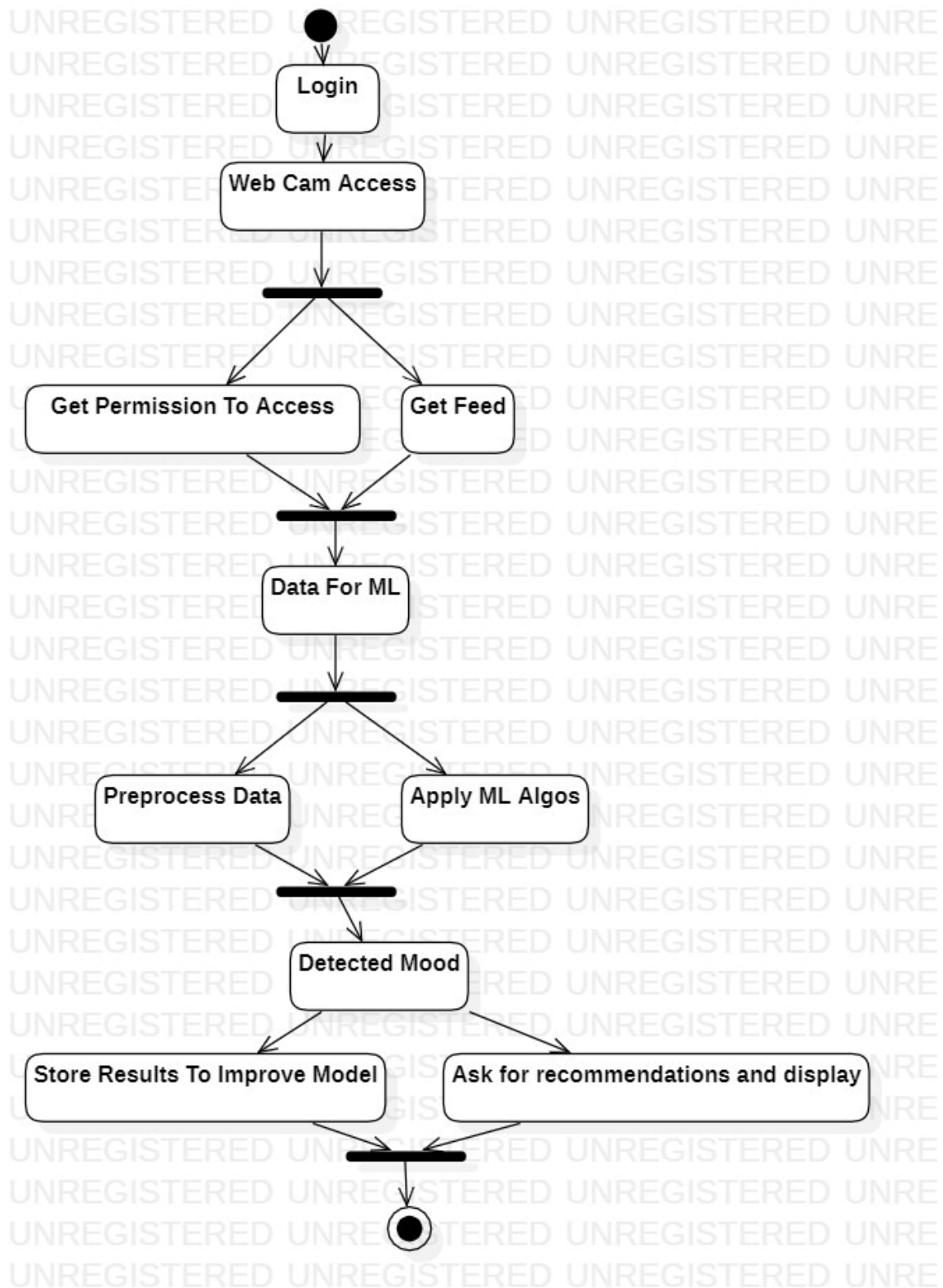
4.3. Object Diagram



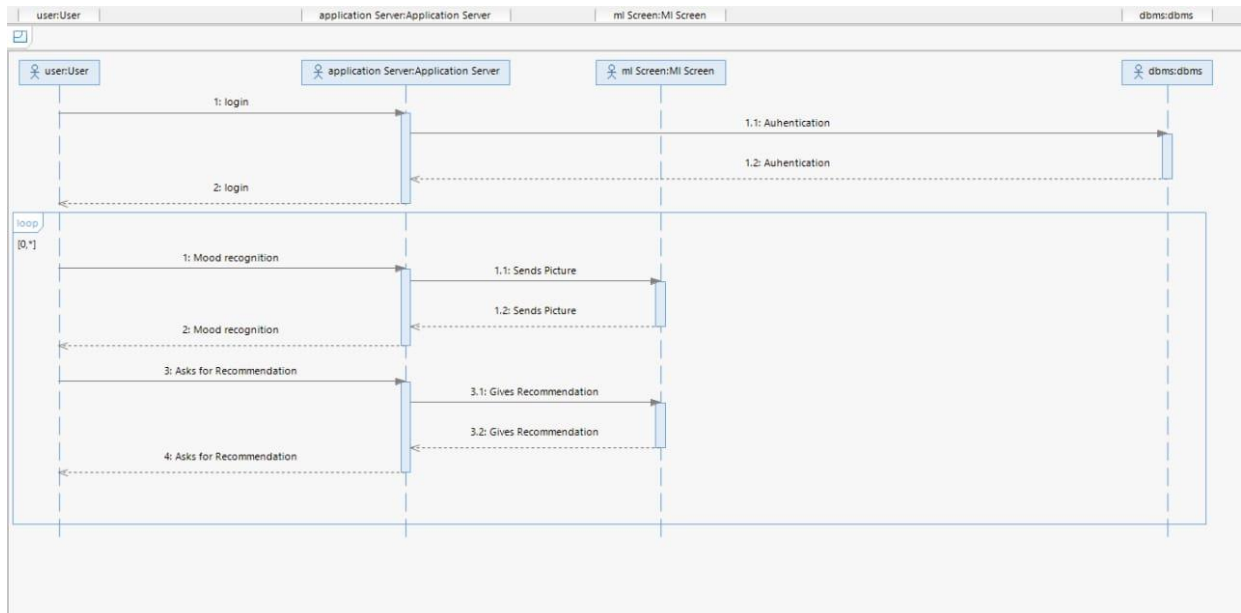
4.4. Colaboration Diagram



4.5. State Chart Diagram

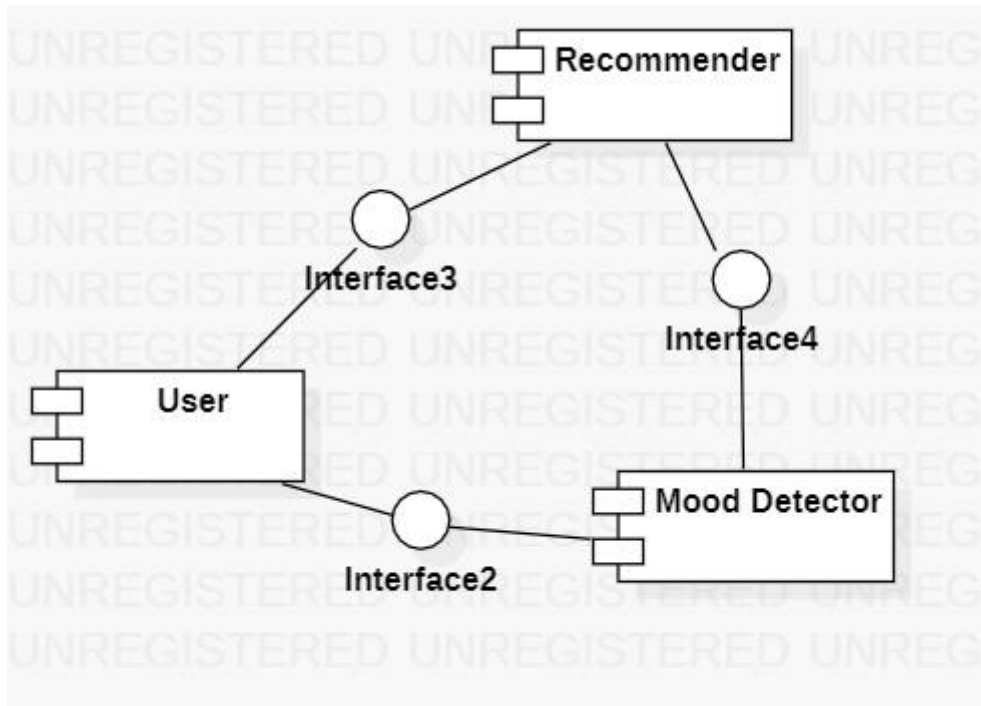


4.6. Sequence Diagram

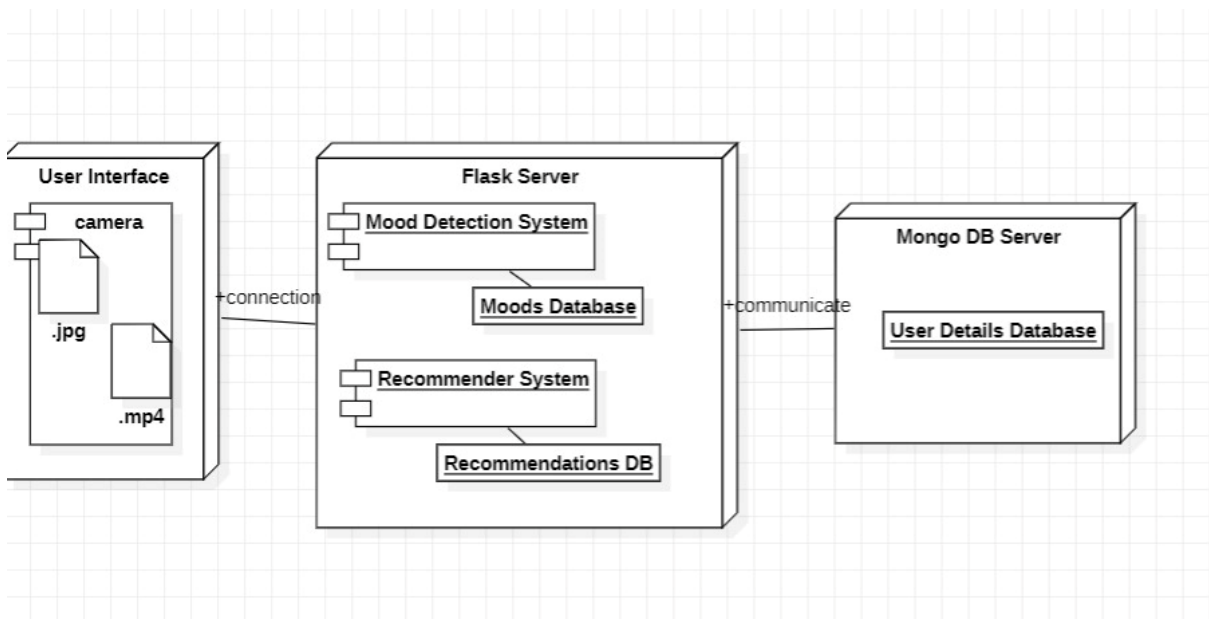


5.Implementation

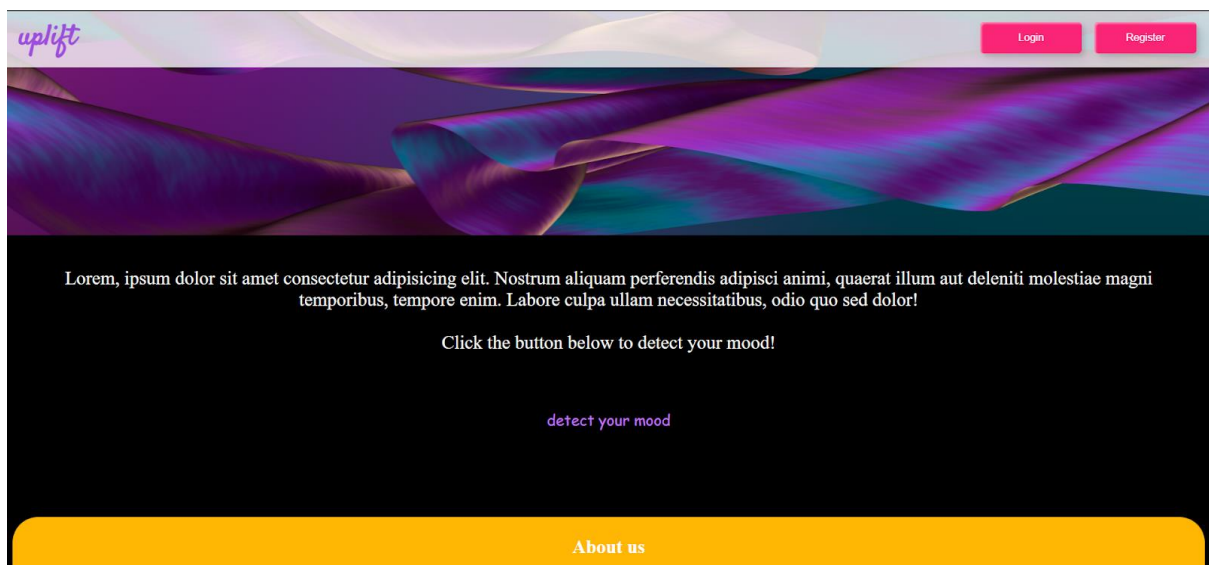
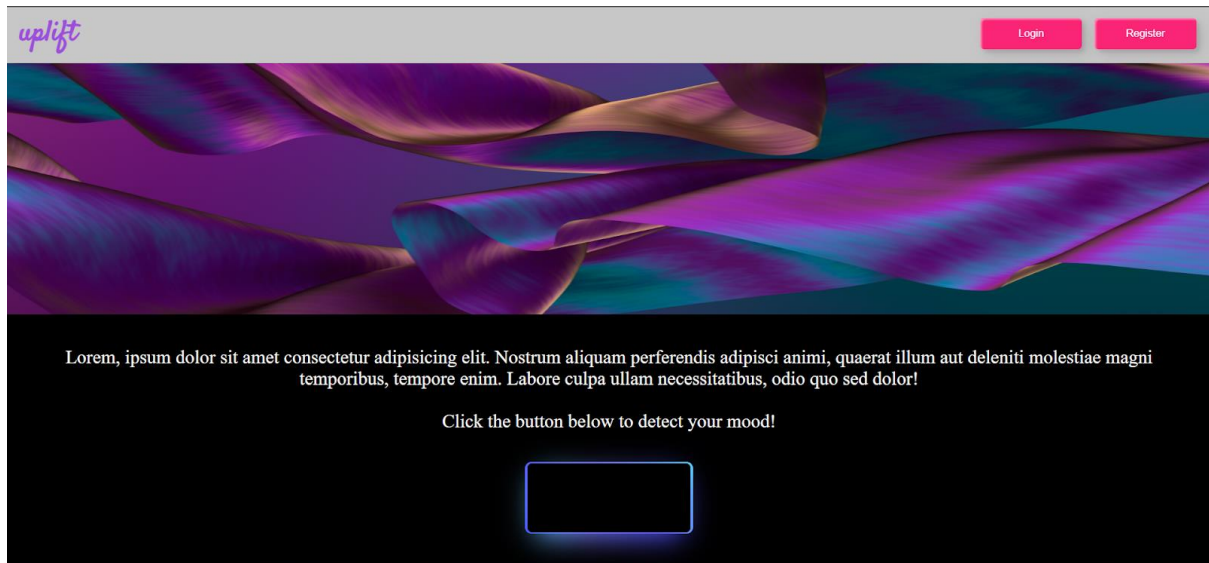
5.1 Component Diagram



5.2 Deployment Diagram



5.3 Screenshots of the working project



Start Camera

Click Photo

get recommendations

Uplift

Let's check your mood

Uplift

A Mood Recognition and Recommendation App

Description: This project is made by:-

102003267: Aaditya Bhatnagar
 102053035: Atulya Vaibhav Rai
 102053016: Riya Kapoor
 102003265: Vishal Sehgal

Choose...

Uplift

Let's check your mood

Uplift

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 102003265: Vishal Sehgal

Choose...



Predict!

Uplift

A Mood Recognition and Recommendation App

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102053035: Atulya Vaibhav Rai
102053016: Riya Kapoor
102003265: Vishal Sehgal

Choose...



Mood Detected: Happy

Get Recommendations!

Uplift

A Mood Recognition and Recommendation App

Description: This project is made by:-

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102053035: Atulya Vaibhav Rai
102053016: Riya Kapoor
102003265: Vishal Sehgal

Choose...



Mood Detected: Happy

Get Recommendations!

Recommendation: <https://youtu.be/OgP9eqCqLs4>

Uplift

Let's check your mood

Uplift

A Mood Recognition and Recommendation App

Description: This project is made by:-

102003267: Aaditya Bhatnagar
102053035: Atulya Vaibhav Rai
102053016: Riya Kapoor
102003265: Vishal Sehgal

Choose...



Mood Detected: Fearful

Get Recommendations!

Uplift

A Mood Recognition and Recommendation App

Description: This project is made by:-

102003267: Aaditya Bhatnagar

102053035: Atulya Vaibhav Rai

102053016: Riya Kapoor

102003265: Vishal Sehgal

Choose...



Mood Detected: Fearful

Get Recommendations!

Recommendation: <https://youtu.be/ijfLsKg8jFY>

Login



Username



Password

SIGN IN

Not a member? [Sign up now](#) →

Protected dashboard

Invalid email or password

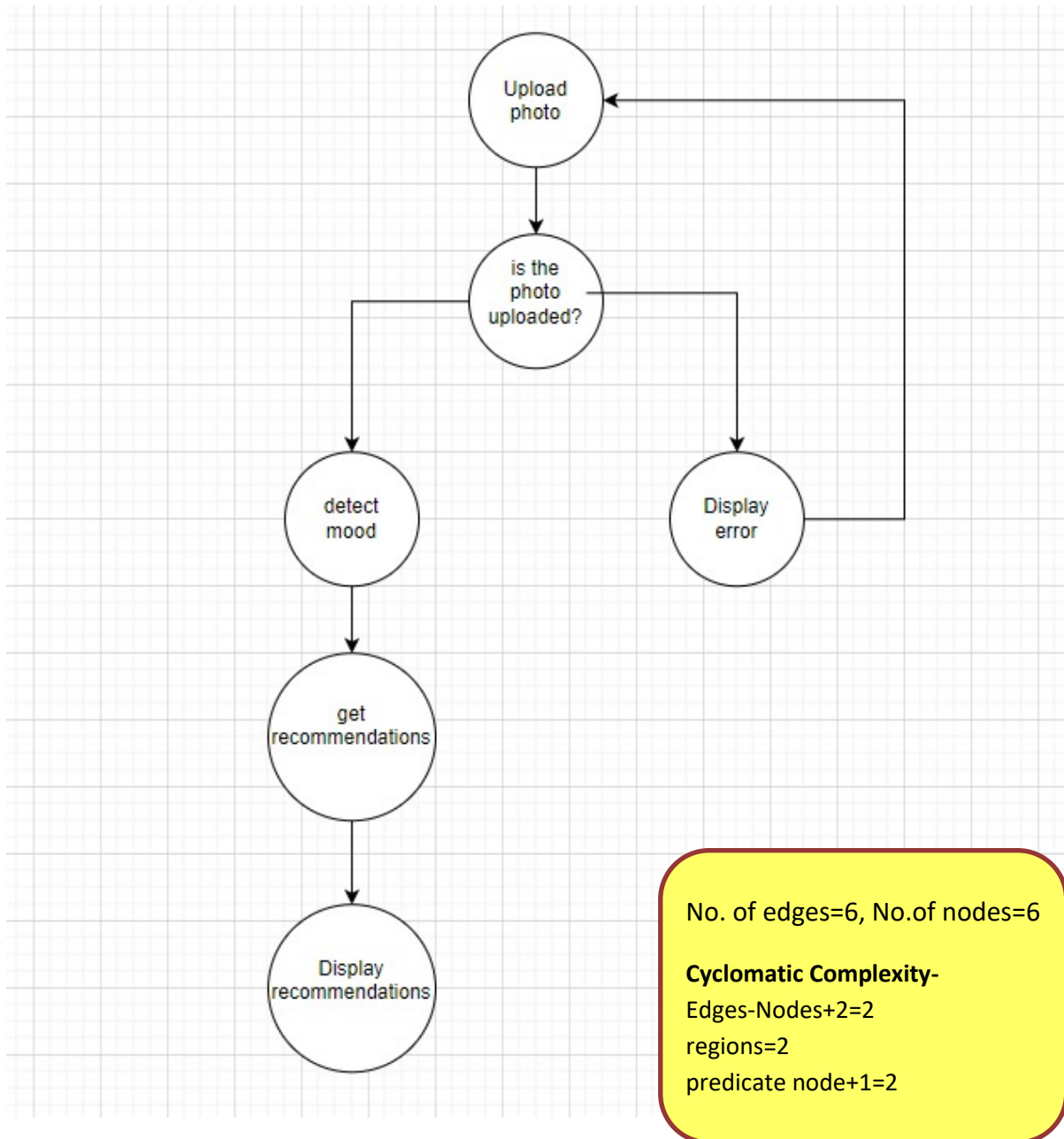
Register

SIGN UP

Already a member? [Sign in](#) →

6. Testing

6.1 Cyclomatic complexity



6.2 Test cases and report

Test Case 1.1

Test Case #: 1.1	Test Case Name: Recognize Mood	Page: 1 of 4
System: Uplift	Subsystem: Mood Recognition System	
Designed by: Vishal Sehgal	Design Date: 24-11-2022	
Executed by: Aaditya Bhatnagar	Execution Date: 25-11-2022	
Short Description: Test to check the mood of the person.		

Pre-conditions

A photo of the user should be available in order to check the mood.



Step	Action	Expected System Response	Pass/Fail	Comment
1	Click the 'Choose' button.	The system pops a window for selection of image of the user.	Pass	
2	Upload 'Fearful' Picture	Uploaded picture will be shown on the home screen.	Pass	
3	Click the 'Predict' button	The system predicts the image to be 'Fearful'.	Pass	

Post-conditions

Fearful state is stored in the local memory of the system for further use.

Test Case 1.2

Test Case #: 1.2	Test Case Name: Recognize Mood	Page: 2 of 4
System: Uplift	Subsystem: Mood Recognition System	
Designed by: Vishal Sehgal	Design Date: 24-11-2022	
Executed by: Aaditya Bhatnagar	Execution Date: 25-11-2022	
Short Description: Test to check the mood of the person.		

Pre-conditions

A photo of the user should be available in order to check the mood.

Step	Action	Expected System Response	Pass/Fail	Comment
1	Click the 'Choose' button.	The system pops a window for selection of image of the user.	Pass	
2	Upload 'Angry' Picture	Uploaded picture will be shown on the home screen.	Pass	
3	Click the 'Predict' button	The system predicts the image to be 'Angry'.	Pass	

Post-conditions

Angry state is stored in the local memory of the system for further use.

Test Case 2.1

Test Case #: 2.1	Test Case Name: Recommendation	Page: 3 of 4
System: Uplift	Subsystem: Mood Recommendation System	
Designed by: Vishal Sehgal	Design Date: 25-11-2022	
Executed by: Riya Kapoor	Execution Date: 27-11-2022	
Short Description: Test to check the recommendations for mood upliftment of the person.		

Pre-conditions

Fearful mood is detected by the system.

Step	Action	Expected System Response	Pass/Fail	Comment
1	Click the 'Get Recommendations' button.	The system processes and shows recommendation for 'https://youtu.be/dQw4w9WgXcQ'	Pass	

Post-conditions

—

Test Case 2.2

Test Case #: 2.2	Test Case Name: Recommendation	Page: 4 of 4
System: Uplift	Subsystem: Mood Recommendation System	
Designed by: Vishal Sehgal	Design Date: 25-11-2022	
Executed by: Atulya Vaibhav Rai	Execution Date: 27-11-2022	
Short Description: Test to check the recommendations for mood upliftment of the person.		

Pre-conditions

Happy mood is detected by the system.

Step	Action	Expected System Response	Pass/Fail	Comment
1	Click the 'Get Recommendations' button.	The system processes and shows recommendation for 'https://youtu.be/xCatIOFua2E'	Fail	In the happy state, system should not respond with any recommendations.

Post-conditions

—