

EmoDetect

ENSE 405 Project - Vlog 1

Jasmeet Singh

UN SDG (s)



High Level Project Vision: Business Case

Business Need/Opportunity

- Create a user friendly application for accurately identifying emotions.
- Six Types of emotions: Anger, Fear, Happiness, Neutral, Sad and Surprise
- Additionally add personalized recommendations based on the emotion detected such as meditations practice etc.

Background

The on going Human Emotion Detection project aims to increase emotional awareness and well-being for individuals. Additionally this project serves as a resource for families and friends fostering empathy and support for their loved ones' emotional struggles.

Vision

This project aims to empower users to better understand and manage their emotions and feelings, aligning with the goal of good health and well being (SDG-3). Additionally, the project serves as resource for families and friends which aligns with quality education (SDG-4)

Proposed Project	EmoDetect
Date Produced	October 15, 2023
Background	The ongoing Human Emotion Detection project aims to increase emotional awareness and well-being for individuals. By accurately identifying emotions, this project aims to empower users to better understand and manage their feelings, aligning with the goal of ensuring good health and well-being (SDG-3). Additionally, the project serves as a resource for families and friends, fostering empathy and support for their loved ones' emotional struggles, in line with the objectives of Quality Education (SDG-4).
Business Need/Opportunity	This project aims to create a user-friendly application for accurately identifying and managing six different types of emotions: anger, fear, happiness, neutrality, sadness, and surprise. Additionally, the app offers personalized recommendations, including meditation practices and nearby dining options, to help users enhance their emotional well-being. This approach aims to empower individuals to proactively improve their mental health and emotional resilience across a spectrum of emotions.
Options	<ol style="list-style-type: none">1. Create a web application that has a user-friendly design which allows the users to detect their emotions. Based on the emotion detected the application will give personalized recommendations such as meditation practices and nearby dining options to help with the user's well-being.2. Create a web application with the existing AI model from my previous class ENSE 480 and do not have the personalized recommendations.3. Do Nothing.

Current State of Technology & Associated Support

Platform	Meditation Application (Headspace)		
Supported activities	Tools	Key features	Usage notes
Individual participation	Guided mediations sessions led by instructors. Sleep stories narrated by soothing voices allowing the user to relax. Mindfulness practices such as breathing practices to reduce stress.	Themes that allows customization which can group meditations. Accessibility support in terms of cross platform compatibility. Offline usage which allows the content to be downloaded that allows accessing content without internet.	The application has a subscription option that offer two plans between free and premium. The user can choose regular practices or choose SOS sessions that allows the user to get immediate support.

Current State of Technology & Associated Support

Stand-alone tool	Calm App		
Supported activities	Tool	Key features	Usage notes
Individual Participation	Guided Meditations	Provides a variety of guided meditations to users based on their different moods.	The application has free and premium content. The primary objective of the application is for the users to use sleep stories and mindfulness exercises.

Stand-alone tool	Yelp - Dining Suggestions		
Supported activities	Tool	Key features	Usage notes
Serving a context	Dining Recommender for the users	Suggests restaurants based on user preferences and location	The application has user reviews and ratings. The users find it useful for discovering new dining options based on their preferences.

Stand-alone tool	Breathe2Relax- Stress Management Application		
Supported activities	Tool	Key features	Usage notes
Serving a context	Breathing exercises and guide to breathing.	Guided breathing exercises to reduce stress.	This application focuses on diaphragmatic breathing that help users to manage their stress and well-being.

Community Areas I am Focusing

<p>Service context</p> <p>In some cases, serving a specific context becomes central to the community's identity and the ways it operates. They may live inside an organization, whose charter their practice needs to serve. They may have a mission to provide learning resources to the world or to recruit members widely. Or they may seek interactions with other communities whose domain complements their own</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Organization as context <input type="checkbox"/> Cross-organizational <input type="checkbox"/> Other related communities <input type="checkbox"/> Public mission 	<p>Serving a context is very vital in this community. It not only defines their practices but also establishes the benchmarks for success and growth. Their objectives and their methods are directly linked to the specific context or mission the community seeks to serve.</p>	<p>Individual participation</p> <p>Learning together happens in the context of a group, but it is realized in the experience of individuals. People bring different backgrounds, communication styles, and aspirations to their participation in a community. People have different levels of commitment, they take on different roles, and they use tools differently</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Levels of participation <input type="checkbox"/> Personalization <input checked="" type="checkbox"/> Individual development <input type="checkbox"/> Multi-membership 	<p>Individual development is the key to strive among the community when it comes to personal well-being. For a community to genuinely benefit and grow, individual members should prioritize personal growth and subsequently channel this acquired knowledge to benefit the larger group.</p>
--	---	---	---	---	--

<p>Open-ended conversation</p> <p>Some communities maintain ongoing conversations as their primary vehicles for learning. Open-ended conversations are common when a community is co-located and people keep the conversation going as they "bump" into each other.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Single-stream discussions <input checked="" type="checkbox"/> Multi-topic conversations <input type="checkbox"/> Distributed conversations 	<p>The members of the community can make themselves comfortable in having multi-topic conversations. The emphasis on multi-topic conversations encourages members to initiate and participate in various discussion threads, ensuring that the platform remains vibrant and offers value to all participants.</p>
--	---	---

Community Areas I am Focusing

Covering the orientations	
Compare the left-hand column of the document “Technology configuration inventory” table with the right-hand column of the document “Community characteristics & orientation” table. What do you notice about the match (or mismatch) between your dominant community orientations and the current configuration of tools?	
How well does the technology inventory cover the orientations? What themes emerged from both the community orientations and the technology configuration from your colleagues' notes	The technology inventory comprehensively addresses the requirements of the various orientations. A recurring theme observed is the emphasis on individual well-being.
<input checked="" type="checkbox"/> Are you almost there? <input type="checkbox"/> Are there big gaps?	Almost there, as many applications exists but are individual so bridging the gap is the goal of this community.
What is the range of skills? If their interests and/or skills are diverse, could it cause conflict or distraction?	It is anticipated that only a fundamental skillset is required as it would be a desktop based application. Diversity in interests and skills, while beneficial, should be managed to avoid potential conflicts or distractions.
Achieving integration	
Look at all the pieces of your configuration	
What level of integration and interoperability has been achieved?	Moderate integration as most of the applications do the individual features that the community is needs , we just need to combine and integrate it together successfully.The interoperability has been achieved by carefully examine all the application required and sufficient algorithms to make it work together.
Where are there big gaps	<ul style="list-style-type: none">• Dataset: As AI sometimes struggles with dark skin and usually with headgear so a limited dataset might present some challenges.• Standardization: As this community tools will be integrate with multiple tools and platforms it could lead to incompatibility issues.

Many scattered applications. I will focus on getting all features under one platform as a tool.

Constraints

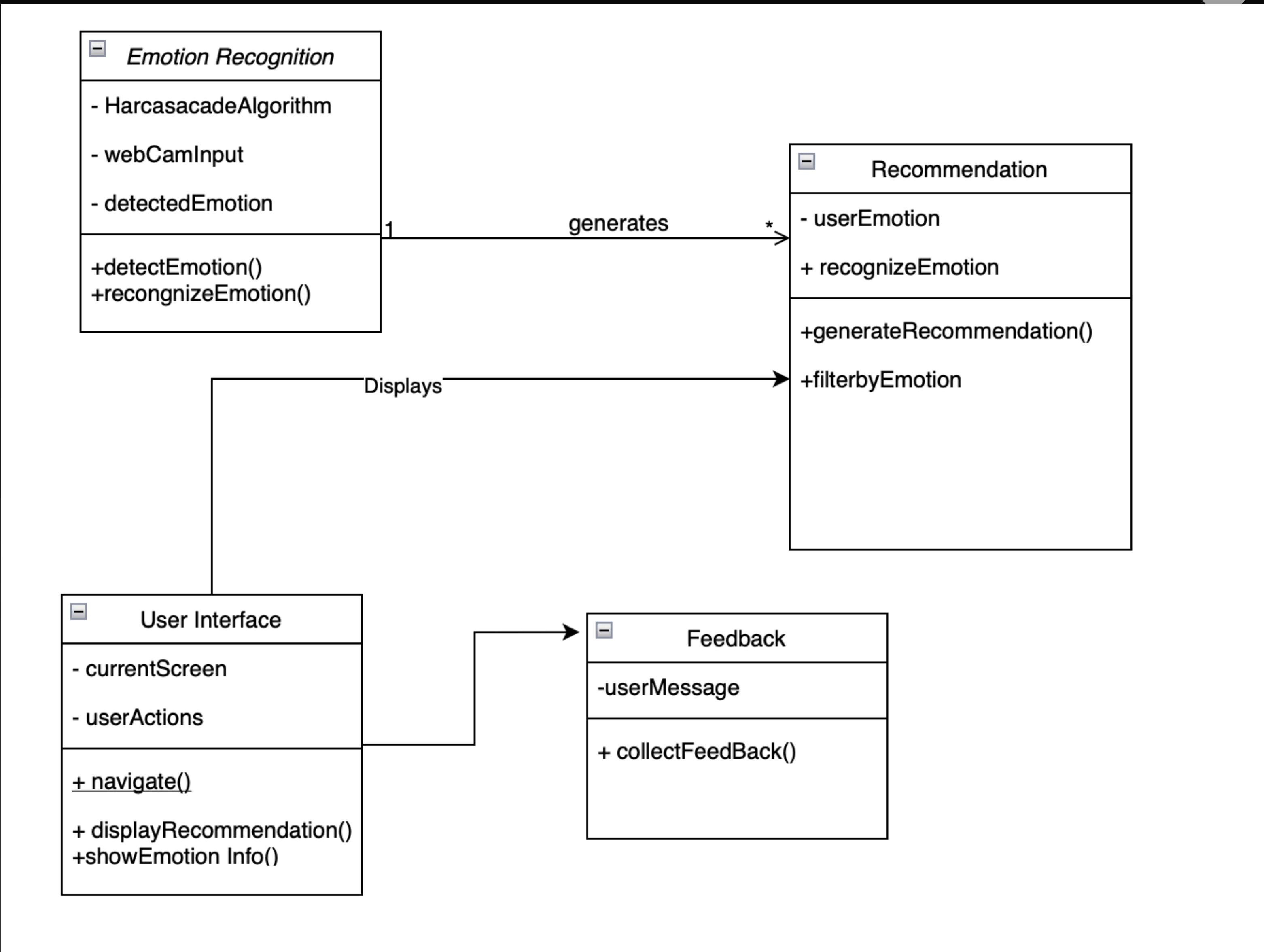
1. A full feature website

COST	BENEFITS
<ul style="list-style-type: none">• A heavy program that might require more time to develop• Will require to learn flask for web application deployment	<ul style="list-style-type: none">• A full developed website for this course's project• Exposure to flask will help in the capstone project• Implementation of flask will act as a simple hosting option as flask is highly compatible with python

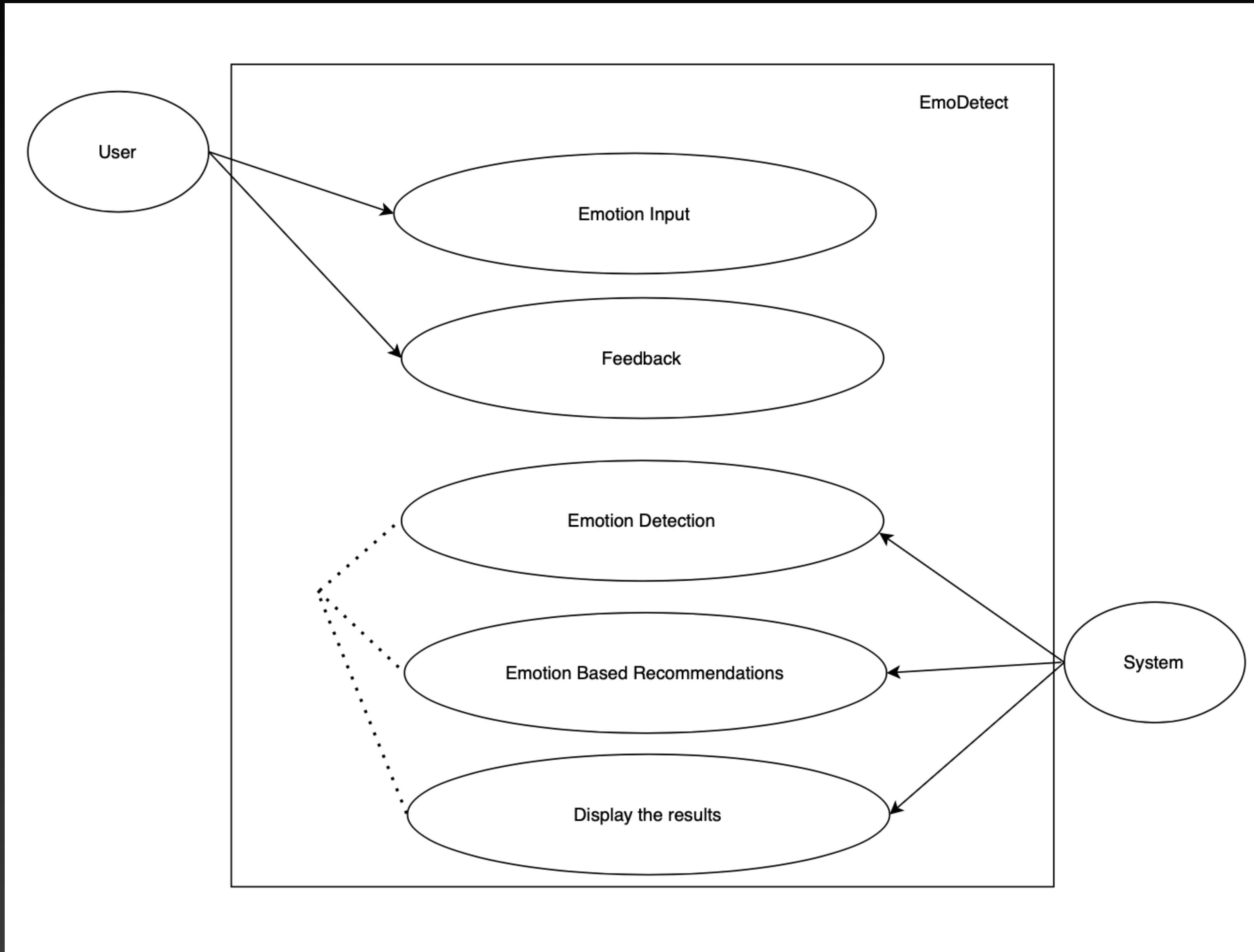
2. A partial feature website

COST	BENEFITS
<ul style="list-style-type: none">• A heavy model that might need more implementation and tinkering for the scope of the project• The project scope will be comprised• Not all deliverables will be met for the course's project	<ul style="list-style-type: none">• Minimal time required to deploy the application as the model already exists• Will get through 50% of the project

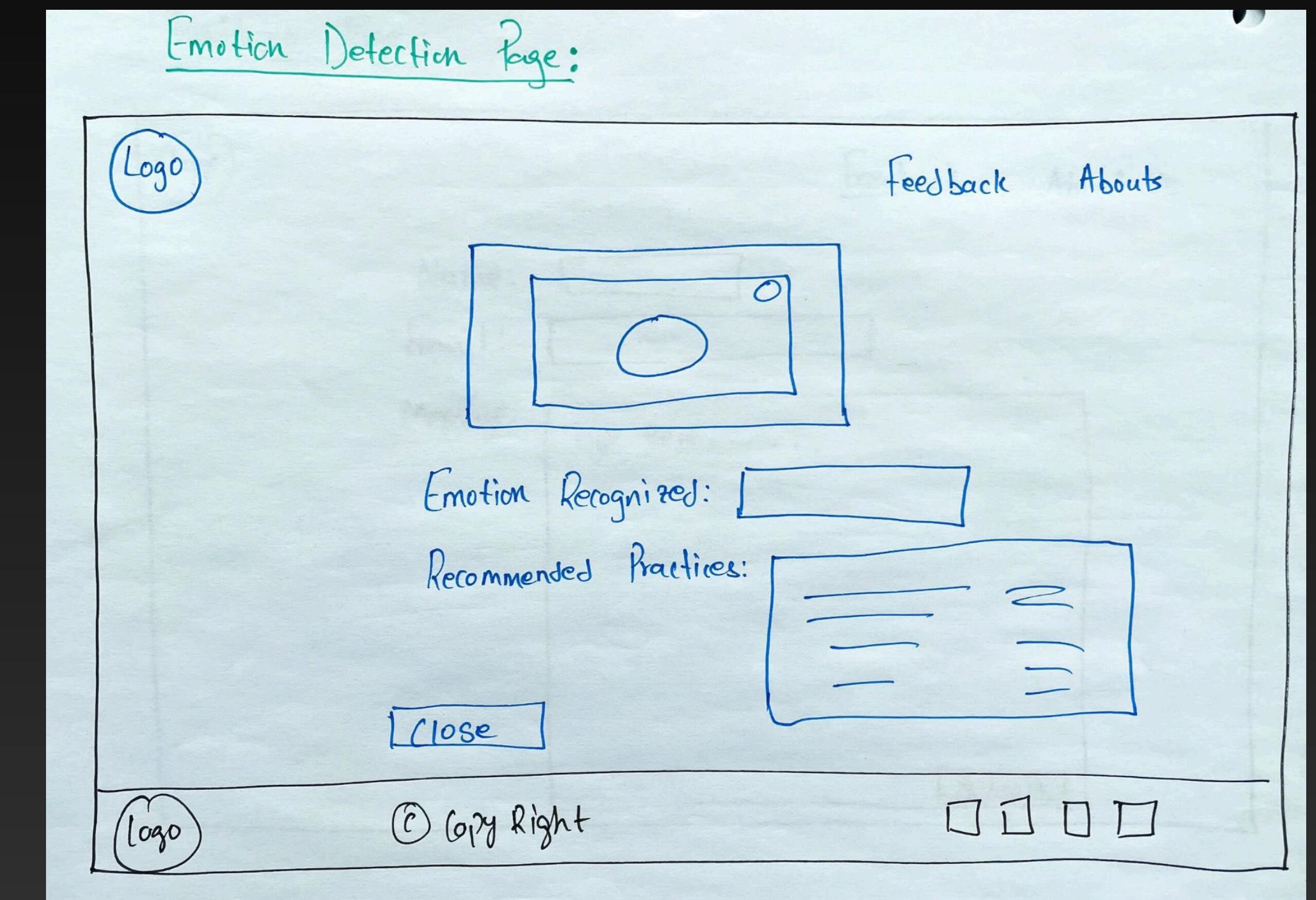
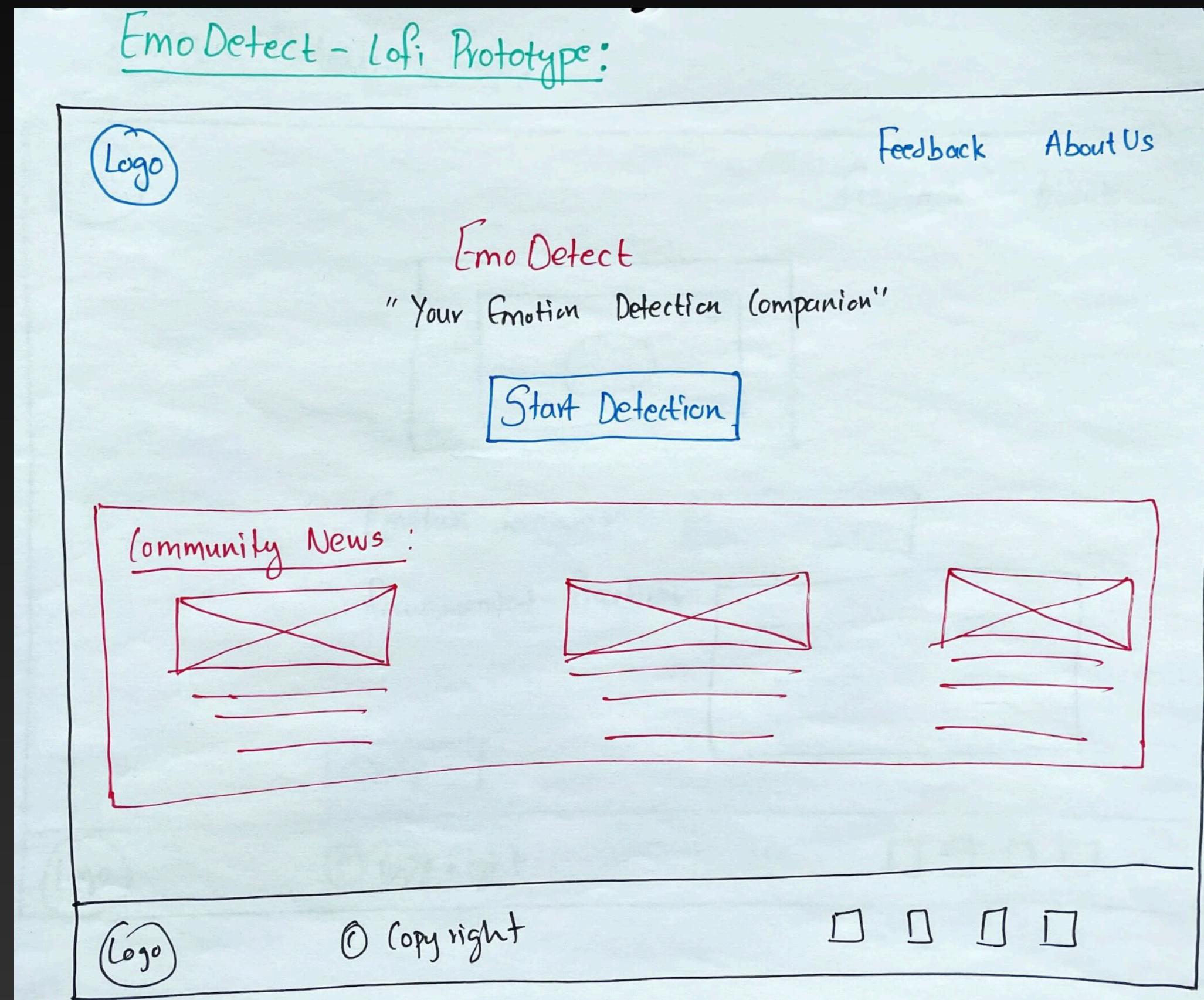
Software Architecture: Class Diagram



Software Architecture: Use case Diagram



Low-Fidelity Prototypes



Low-Fidelity Prototypes

Feedback Page :

Logo

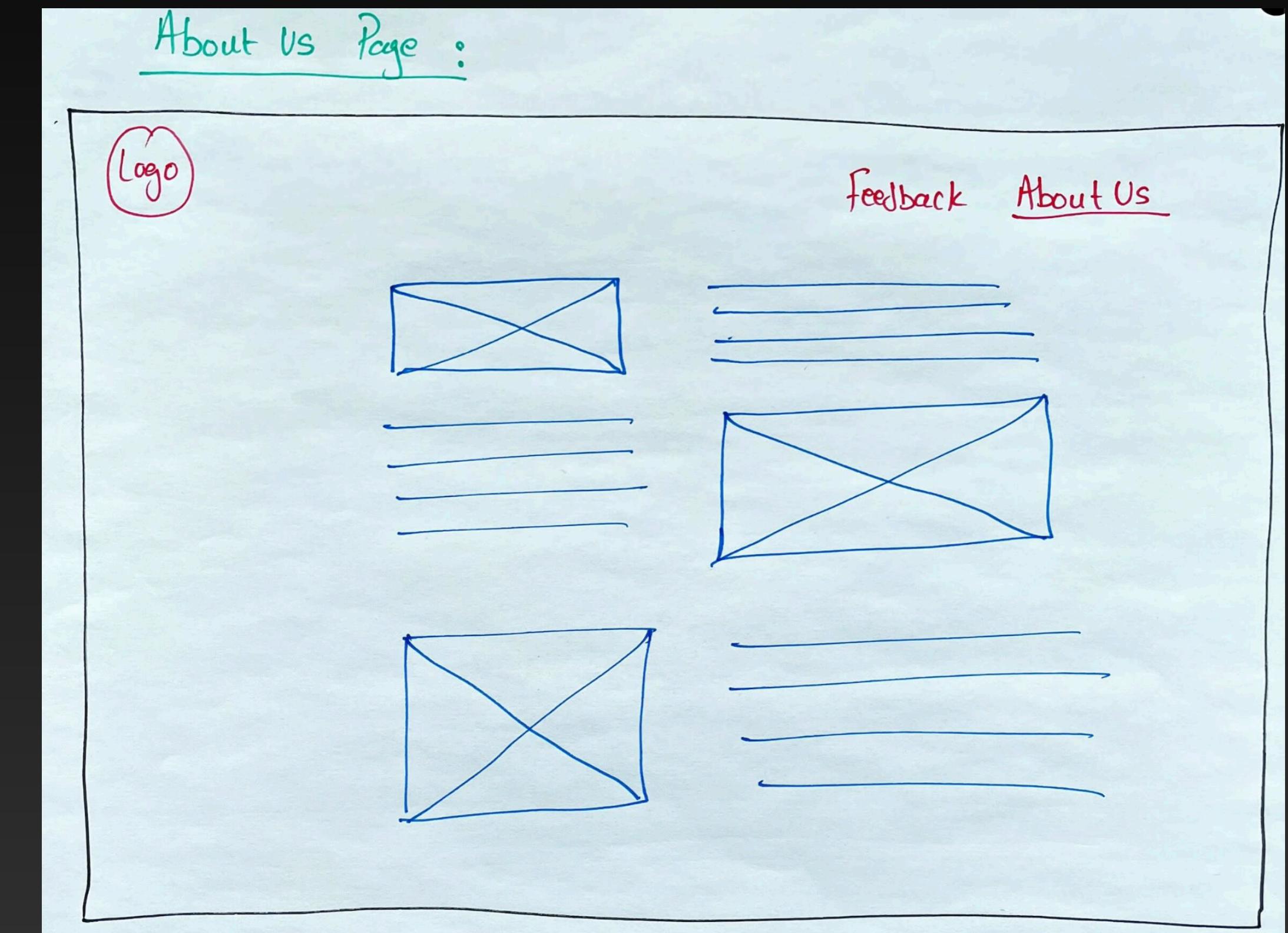
Name:

Email:

Message:

Submit

Feedback About Us



Thank You!

Jasmeet Singh