NLP PROJECT

CHATBOTS AND DIALOGUE SYSTEMS

TEAM MEMBERS

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CHATBOT

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WHAT??
WHY??
HOW??

WHAT??

EMOTIONAL WELLNESS OR MENTAL HEALTHCARE CHATBOT:

The goal of this project is to be able to build a fully functional chatbot. We use NLP to build a mental health chatbot based off advice and responses by verified psychologists all across the world(DATA SET). It uses BERT pre-trained word embeddings and cosine similarity to perform similarity extraction and retrieves the response.

WHY??

National Mental Health Survey reported that one in seven people in India suffered from mental disorders, including depression and anxiety. The increasing awareness of mental health has made it a primary concern of development. Nearly 150 million people in India needed interventions, where the low and middle class faced more burden than the well-off people. This project is an attempt to make mental health more accessible.

HOW??

ABSTRACT WORKFLOW
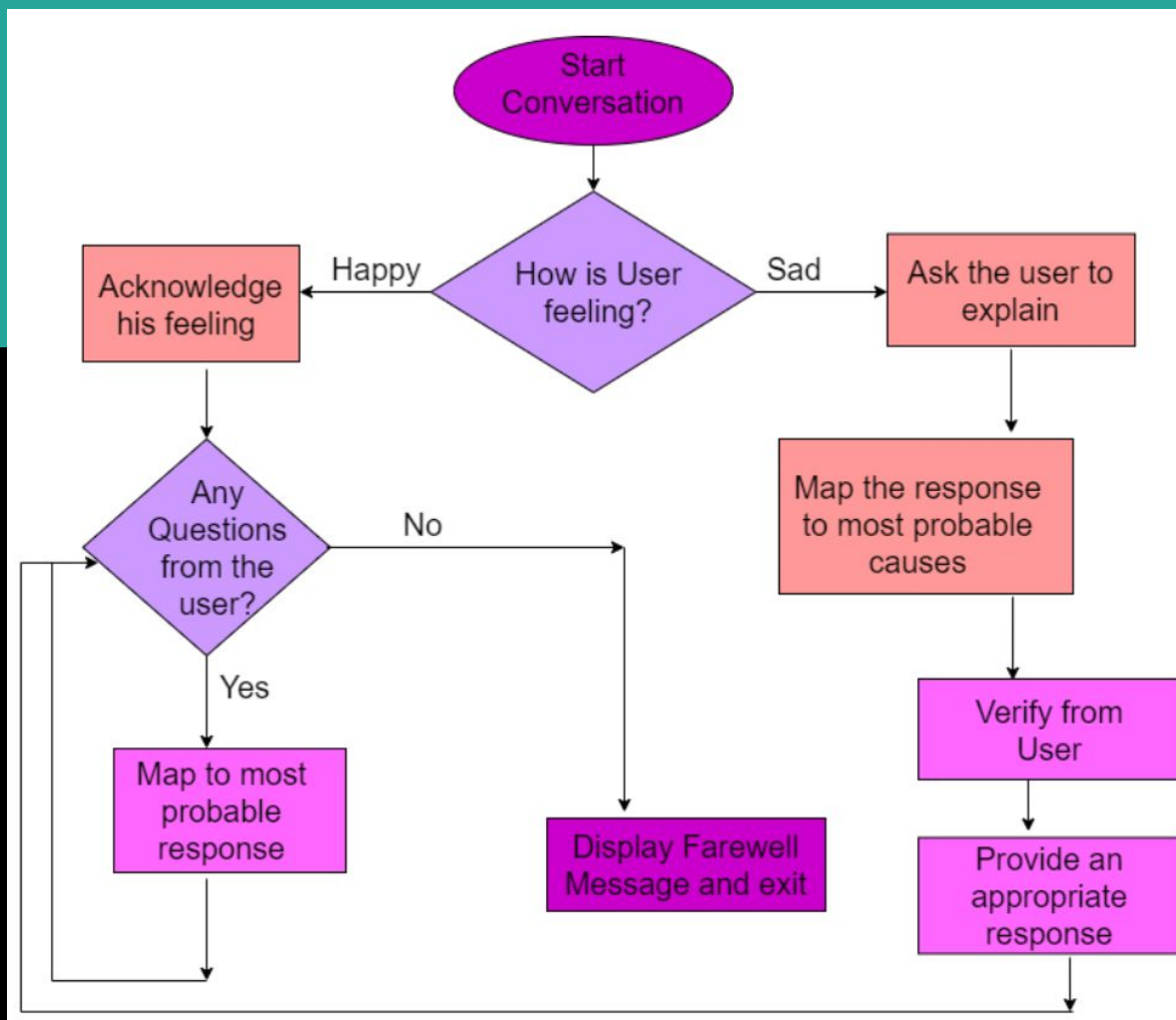
Data collection: We are collecting data based off advice and responses by verified psychologists all across the world.

Data Preprocessing: Tokenization, stopwords removal and then followed by lemmatization/stemming.

DETAIL WORKFLOW

HOW??

We are planning to create a Chatbot using models such as SVM,BERT embeddings,Sentiment Analysis and to create GUI in tkinter for above.

Tkinter :
Tkinter is a Python library that can be used to construct basic graphical user interface (GUI) applications.
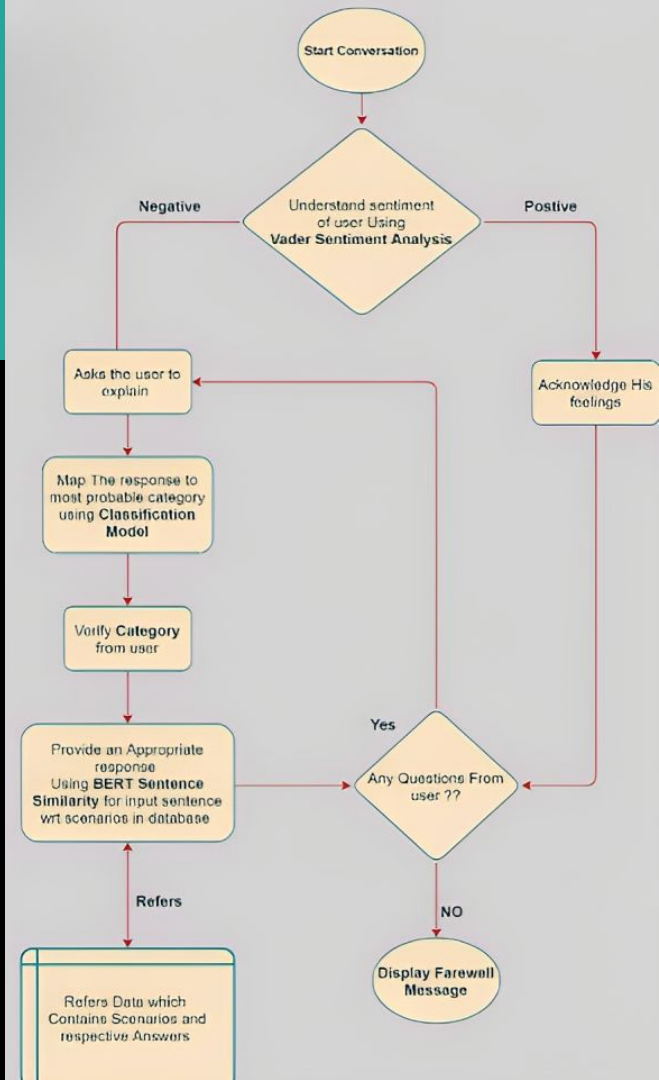
Vader sentiment analysis:
VADER(Valence Aware Dictionary for Sentiment Reasoning) is an NLTK module that provides sentiment scores based on the words used.

SVM CATEGORY CLASSIFIER:
For classification into classes here we also use tfidf to Predict Probabilities.

Sentence similarity using BERT embeddings:
We use BERT in our model to find the similarity.

THANK YOU