Basic Details of the Team and Problem Statement

Ministry/Organization Name/ Student Innovation :
Ministry of Commerce and Industries

PS Code: SIH1357

Problem Statement Title:
Sentiment analysis of Social Media presence

Team Name: UNISOLVE

Team Leader Name: KAUSIK D

Institute Code (AISHE): C-16537

Institute Name: St. Joseph’s College of Engineering

Theme Name: Miscellaneous

Idea/Approach Details

✦ The idea is to develop an application which crawls through the major social medias like Instagram, Twitter, Threads.

✦ It uses variouss ML and NLP algorithms to analyse the sentiment of the given individual or an organization.

✦ The user has to provide certain details like their Instagram account , twitter page , then the application gets the comments and reaction from the posts.

✦ These comments are further classified based on whether they are +ve or -ve to give feedback on the sentiment of the post or topic.

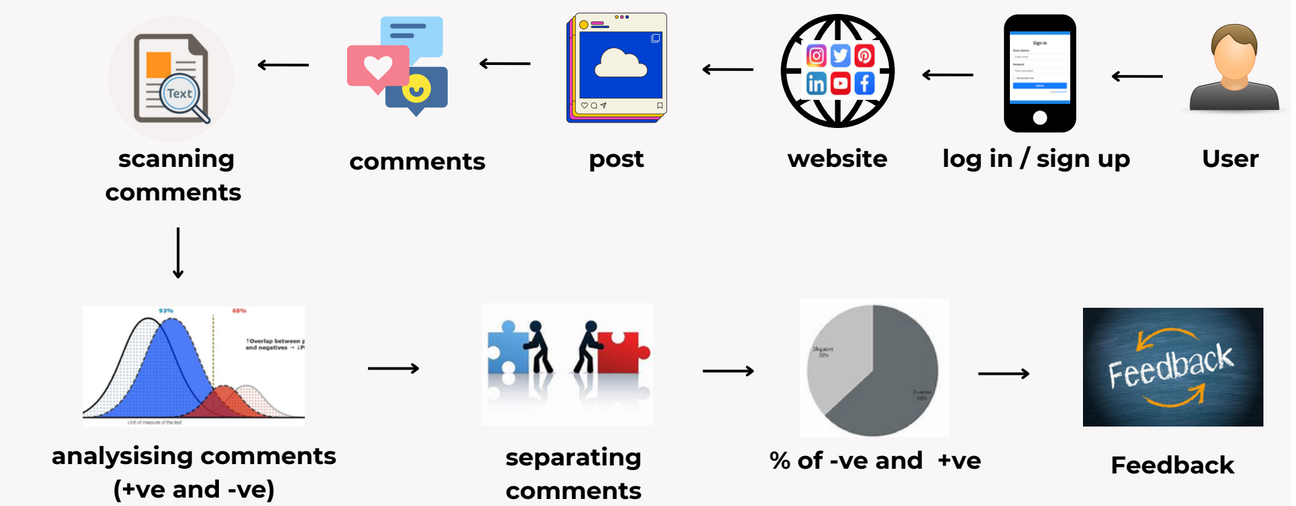
Additional features

✦ Multilingual support and real-time scanning.

✦ Trend forecasting and analysis which provides valuable insights for the organization where to invest resources and efforts.

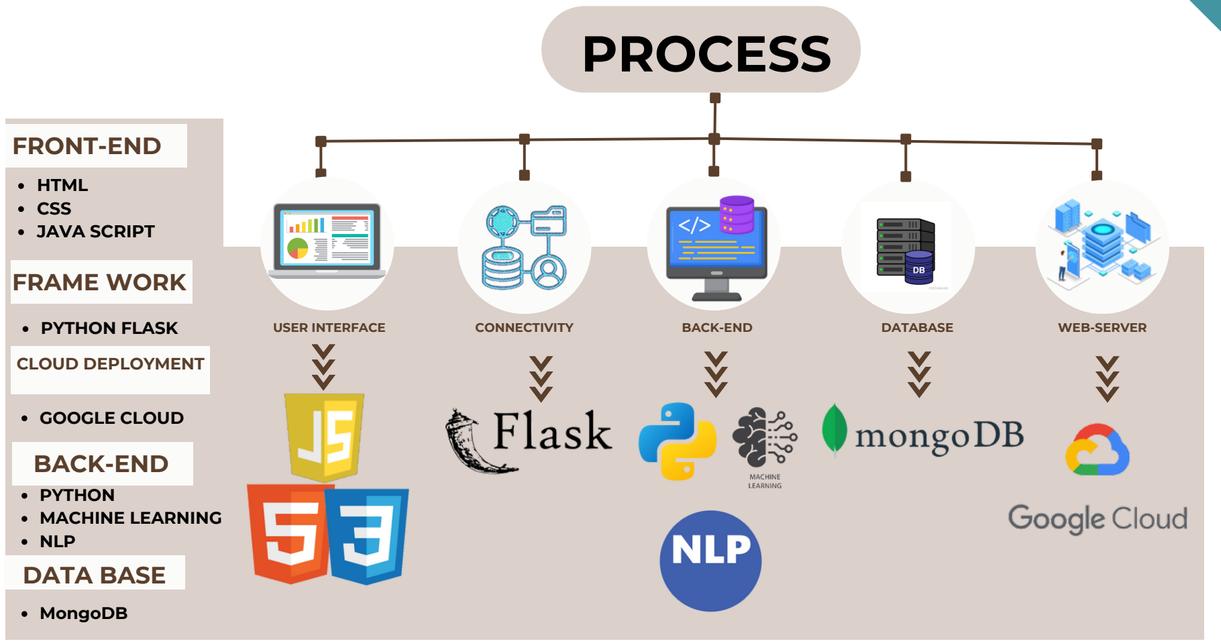
✦ The sentiment is categorised based on their location to check for their perception in that area.

Work Flow



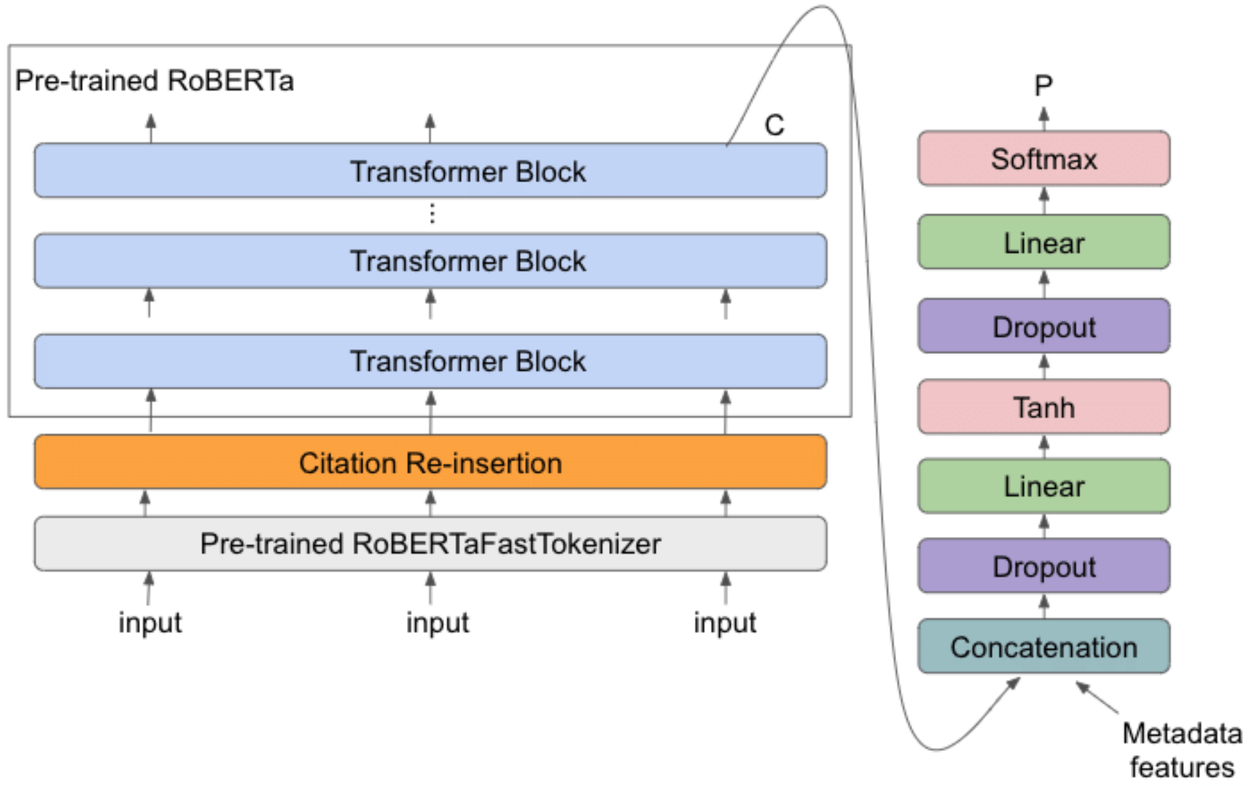
Use Case Diagram

Dependencies



RoBERTa :

- **RoBERTa is a large language model developed by Google AI, trained on a colossal corpus of text and code.**
- **BERT stands for bidirectional encoder representation from transformers model, with several key improvements that make it more robust and accurate than its predecessors.**
- **RoBERTa is built on top of BERT and has proved to outperform BERT on sentiment analysis, a natural language processing (NLP) task that involves identifying the emotional tone of a piece of text.**
- **On the popular SST-2 benchmark dataset, RoBERTA achieves an accuracy of 93.0%, which is significantly higher than the 92.9% accuracy achieved by BERT.**



Progress as of 19th September

- RoBERTa Model for sentiment analysis
- Front end to get the user details
- Api to get Youtube comments and replies
- Instance in GCP to host the applicationd
- Multilingual Support

Currently Working on

- Scraping tweets and its corresponding data (Due to regulatory issues)
- Integrating frontend and the model
- Other Developmental aspects of the projects

Team Member Details

Team Leader Name: KAUSIK D
Branch: B.Tech Stream: AIML Year: II

Team Member 1 Name: KARTHICK SRIRAM M
Branch: B.Tech Stream: AIML Year: II

Team Member 2 Name: JENAVANI D
Branch: B.Tech Stream: AIML Year: II

Team Member 3 Name: RAKSHANAA R
Branch: B.Tech Stream: AIML Year: II

Team Member 4 Name: LAKSHMISIMHA REDDY K
Branch: B.Tech Stream: AIML Year: III

Team Member 5 Name: JEYA DEEPAK J
Branch: B.Tech Stream: AIML Year: III

Team Mentor 1 Name: Type Your Name Here
Category (Academic/Industry): Expertise (AI/ML/Blockchain etc): Domain Experience (in years):

Team Mentor 2 Name: Type Your Name Here
Category (Academic/Industry): Expertise (AI/ML/Blockchain etc): Domain Experience (in years):