

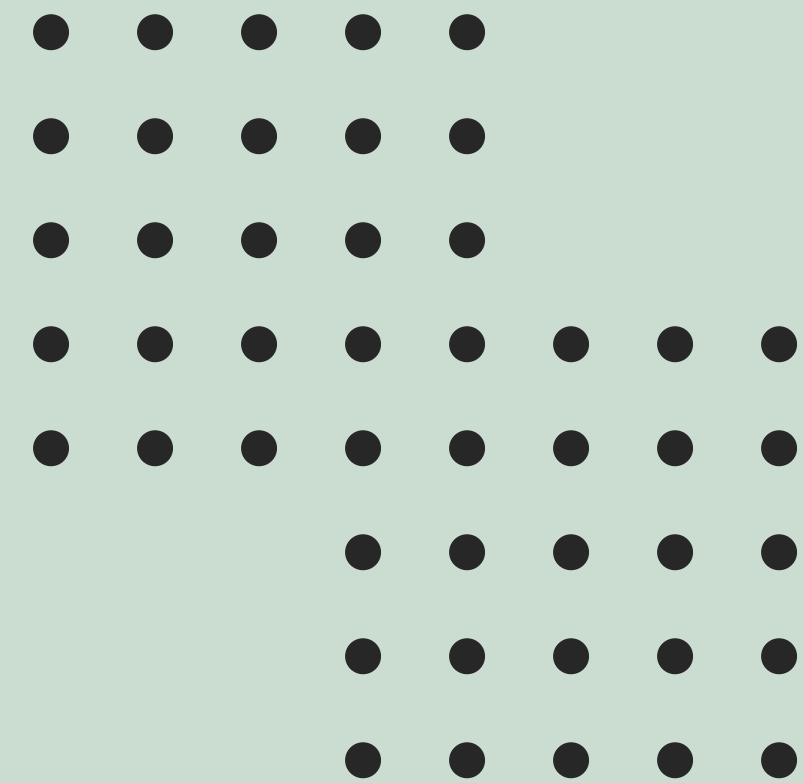


ClarityAI

 HackIIIT

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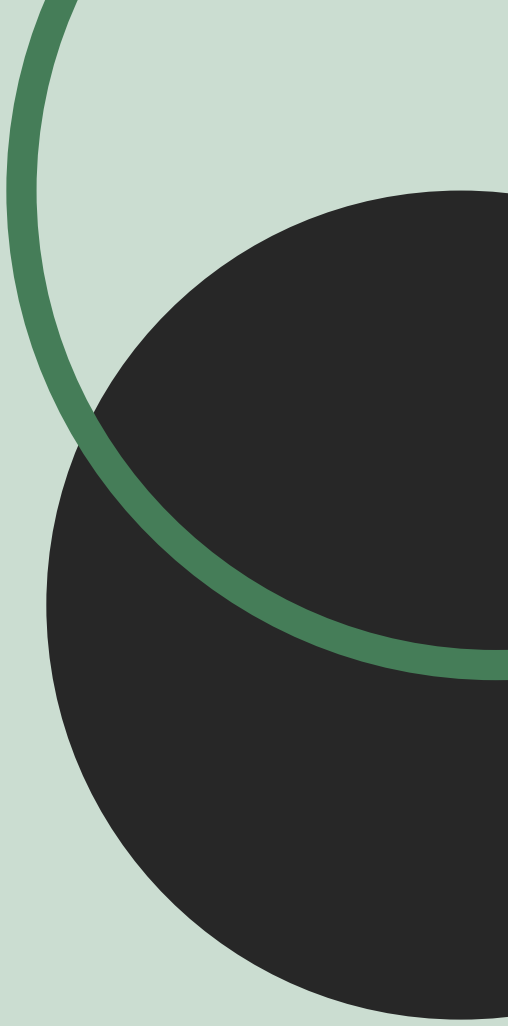
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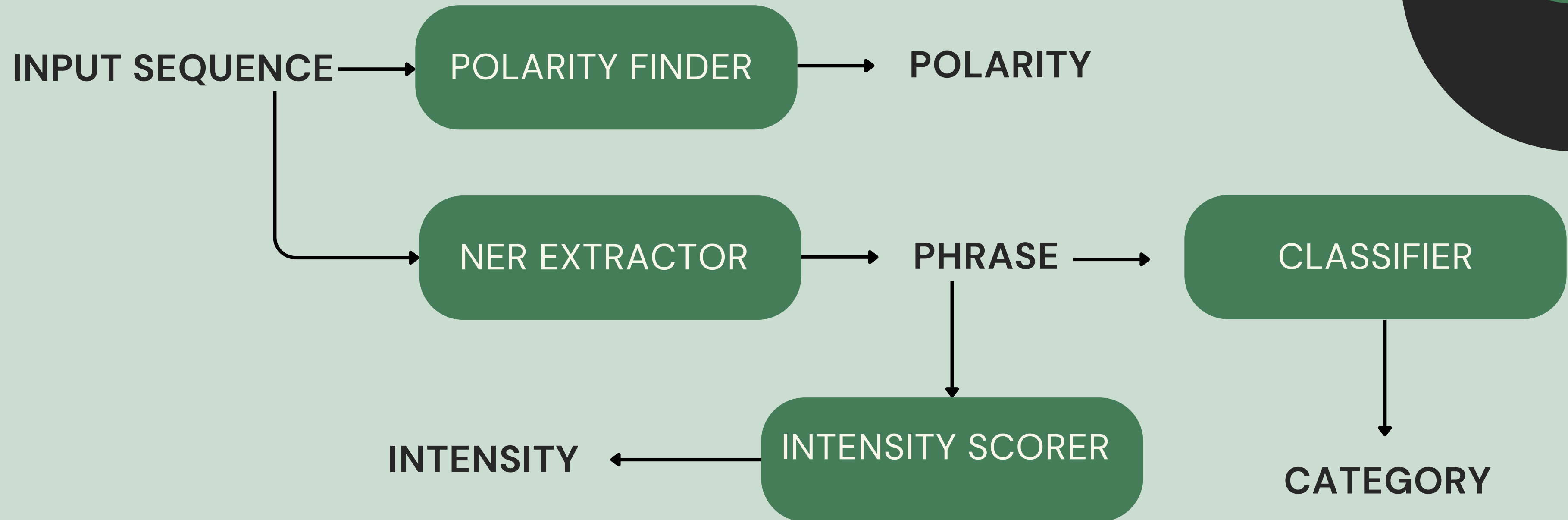
THE DATASET

Used large language models to generate realistic sentences , annotated with polarity, extracted concern, category, and intensity.

Each entry was then physically checked to ensure consistency of the datapoints.



NLP PIPELINE

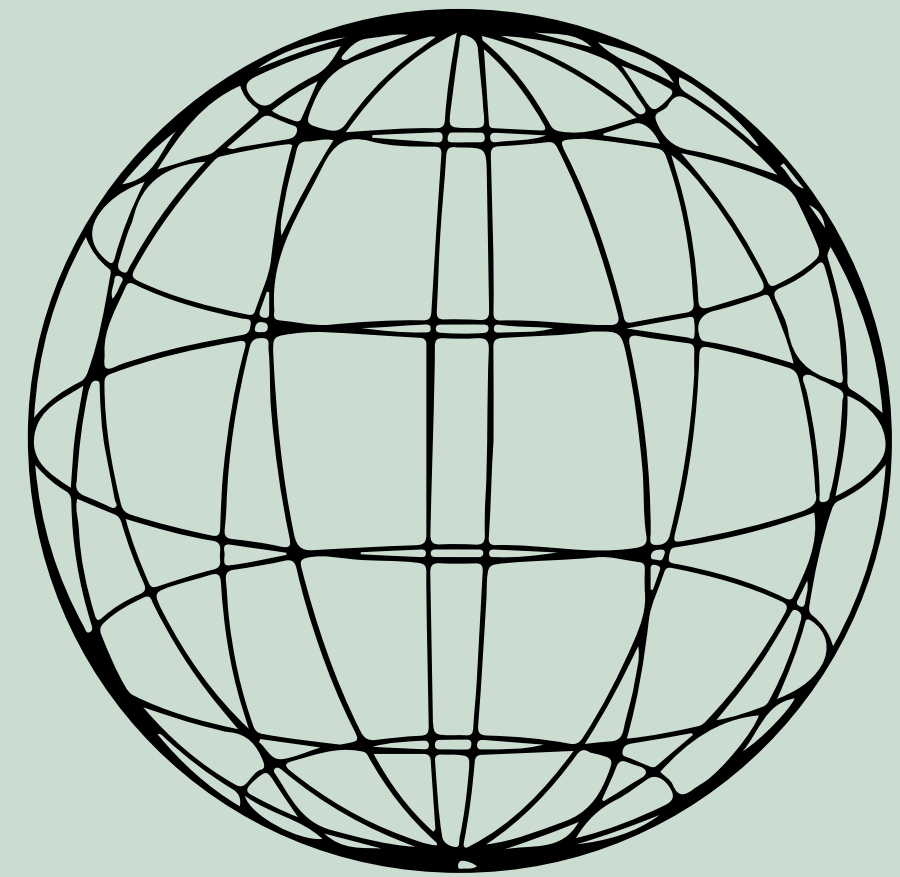


NLP PIPELINE

INPUT SEQUENCE :
"RELATIONSHIP STRESS LEAVES ME
FEELING SUICIDAL EVERY NIGHT"

POLARITY: NEGATIVE
CONCERN: FEELING SUICIDAL
CATEGORY: DEPRESSION
INTENSITY: 5

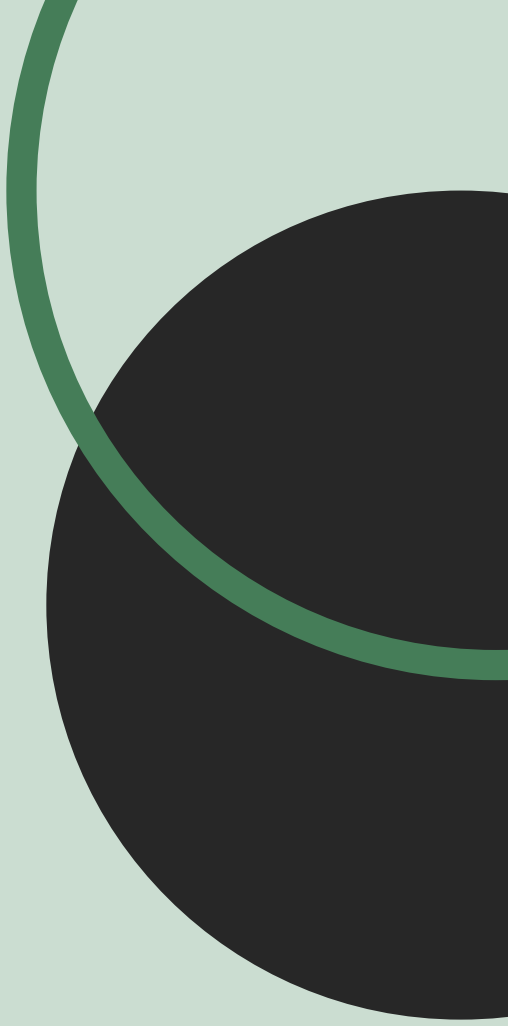
[RASISES ALERT WITH HELPINE NUMBER]



ClarityAI

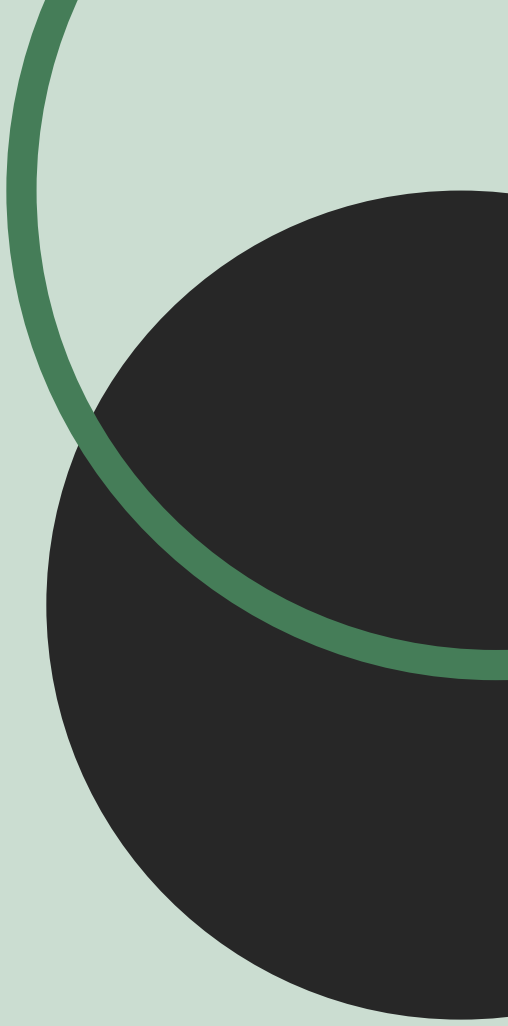
POLARITY FINDER

- **Tokenize text** using AutoTokenizer (DistilBERT SST-2).
- DistilBERT model **classifies sentiment** as positive or negative.
- Accuracy : 94.27%



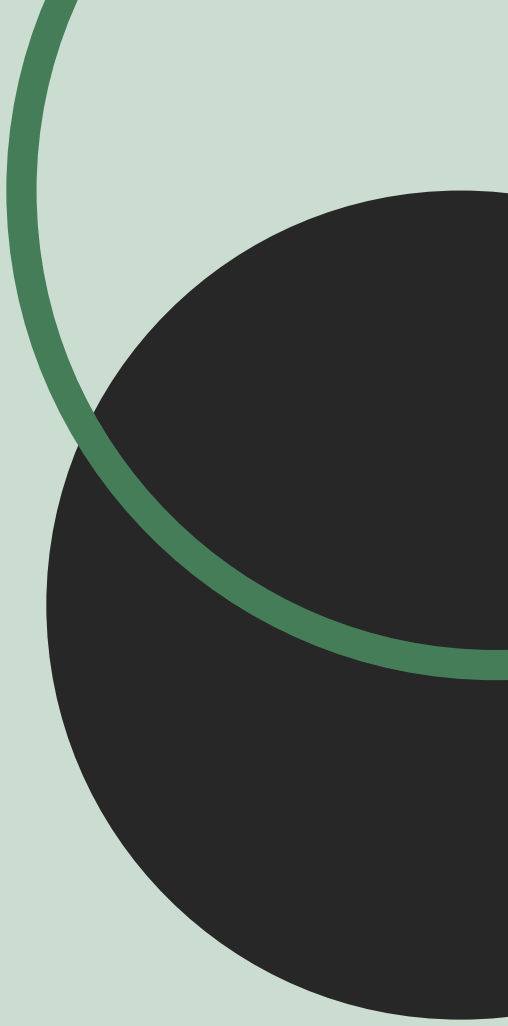
NER EXTRACTOR

- spaCy's **Named Entity Recognition** identifies keywords related to mental health.
- Labeled examples map mental health phrases to entities for accurate extraction.
- Accuracy : 87.11%



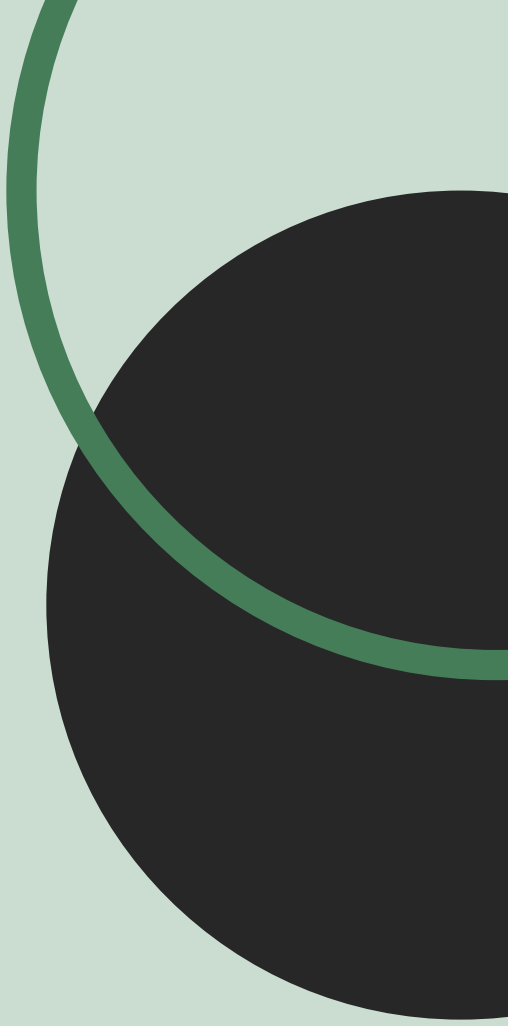
CLASSIFIER

- **TF-IDF vectorizer** for **feature extraction**.
- **Random Forest** classifier maps to 7 mental health categories.
- Accuracy: 96.76%



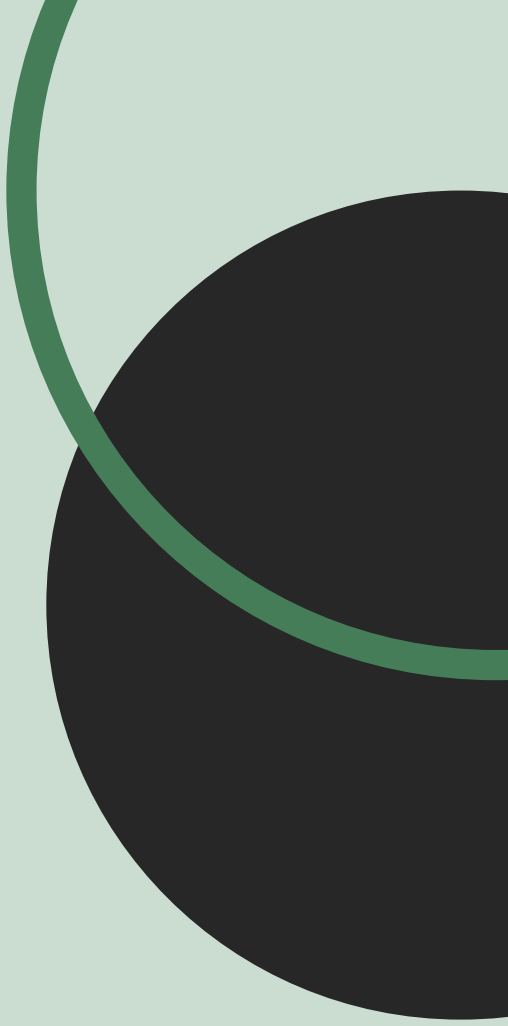
INTENSITY SCORER

- **VADER sentiment analysis** calculates compound score.
- Assigns 1–5 intensity score to sentiment.
- Indicates strength of concern.
- Accuracy : 93.13%

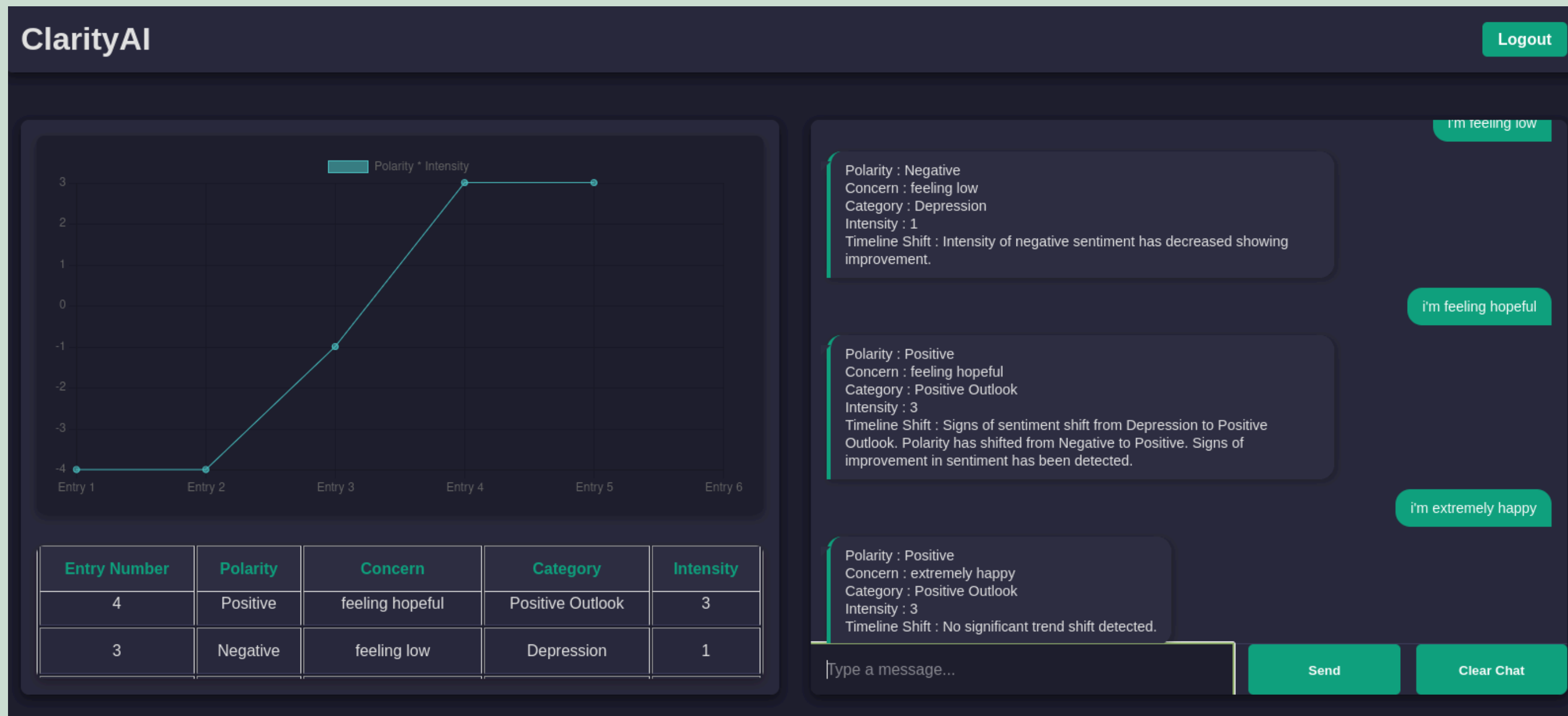


TIMELINE-BASED SENTIMENT ANALYZER

- Tracks polarity and intensity over time.
- Visualizes trends in emotional progression.
- Supports proactive monitoring.
- Tracks sentiment change between consecutive user inputs.

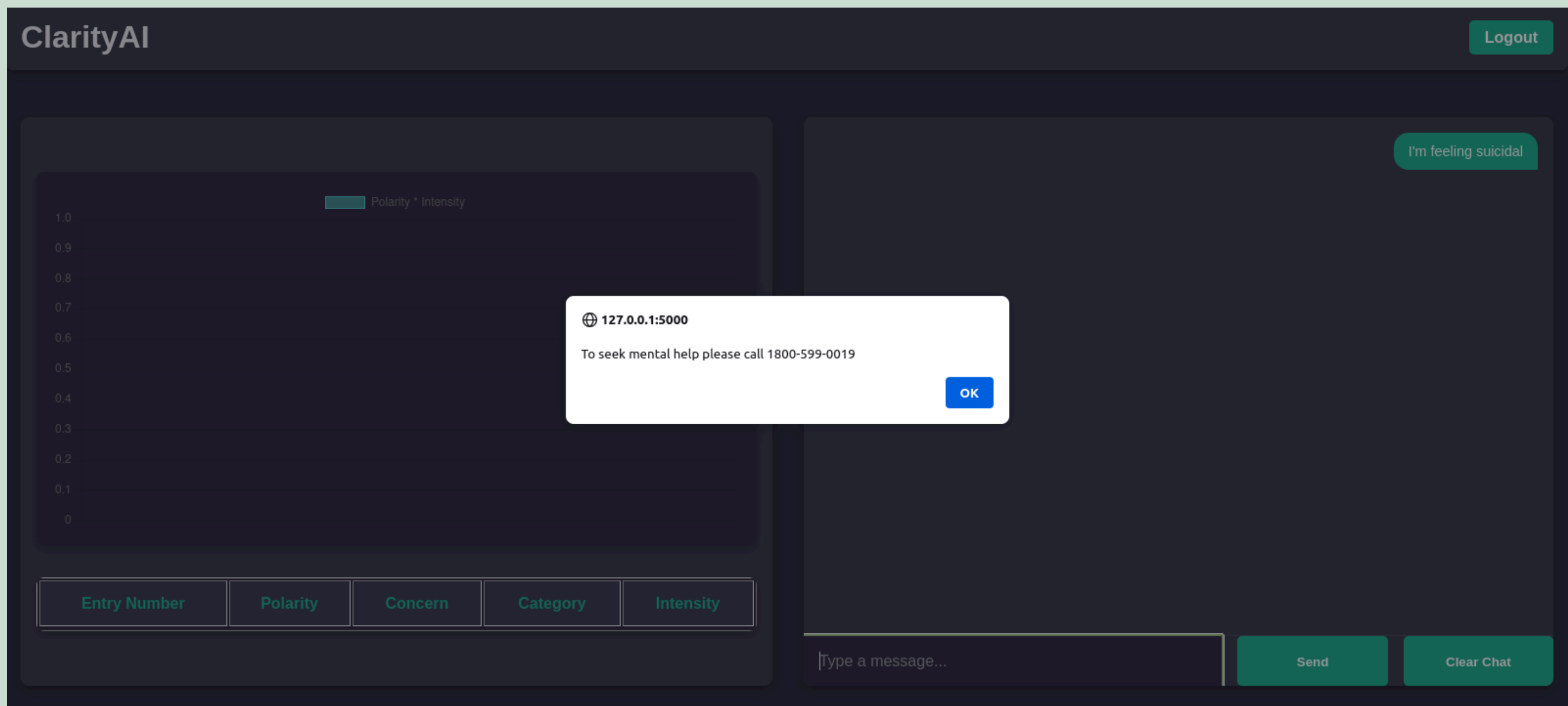


USER INTERFACE



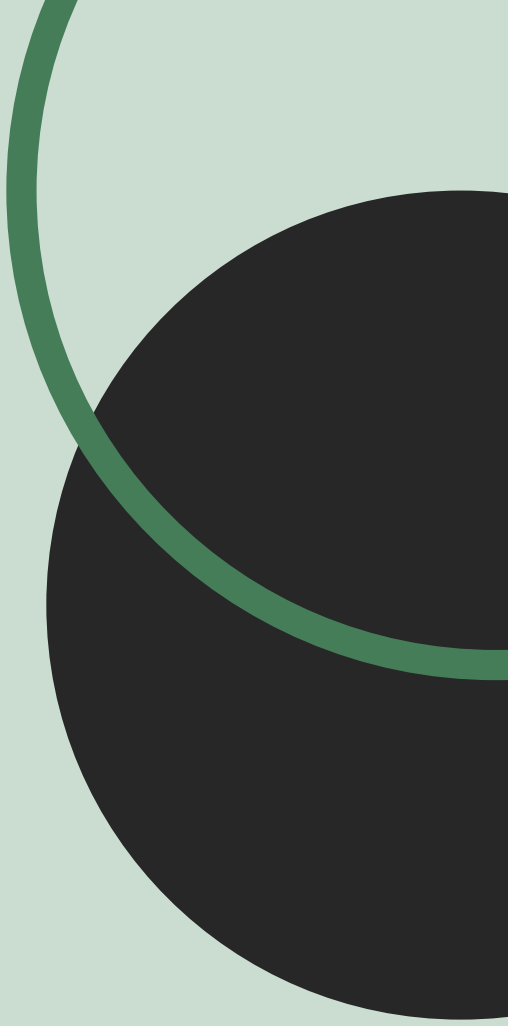
Demo Video – <https://drive.google.com/file/d/1OMV6CUWGIV0z4TBc3ifGmHjNH7Xt8qZI/view?usp=sharing>

THE HELPLINE ALERT



WHY CHOOSE US

- **Cutting-Edge Models:** Uses state of the art DistilBERT, spaCy NER, VADER for robust, accurate analysis.
- **Independent from LLMs:** Not relying on GEN-AI enables a fast response time of 1.2 seconds. No hassle of exhausting API key limits.
- **User Centric Visualisation :** Sentiment plots allowing user to track their mental state.





TEAM MEMBERS

SHAUNAK BISWAS

shaunak.biswas@research.iiit.ac.in

HIMANSHU YADAV

himanshu.yadav@students.iiit.ac.in

SIDDHARTH AGARWAL

siddharth.agarwal@students.iiit.ac.in

SHREYANSH

shreyansh.bhanu@research.iiit.ac.in

ROHAN SHRIDHAR

rohan.shridhar@students.iiit.ac.in





THANK YOU!