ARE YOU FEELING ANXIOUS RIGHT NOW?
Anxiety detection on social media text

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Identified need?
40 MILLION IN THE US

About 19% of adults have an anxiety disorder (Anxiety disorders, 2017). To put this in perspective that is over 40 million people in the US with anxiety. Now one's choice of words even punctuation can hint at the mental or emotional status of a person (Havigerová et al., 2019). There are systems already created for the purpose of analyzing text to provide feedback about a person like the system, TensiStrength (Thelwall, 2016).

PROBLEM STATEMENT

From anxiety subreddit can we classify them into varying degrees of anxiety and provide tailored messages to address anxiety levels with a Chatbot response system?

METHODOLOGY

The analysis of scrapped texts will be used in hopes of classifying users messaging anxiety levels as Binary Classification.

Writing subreddit helps Classification for its predominant positive neutral language and text heavy post which helps on classification.
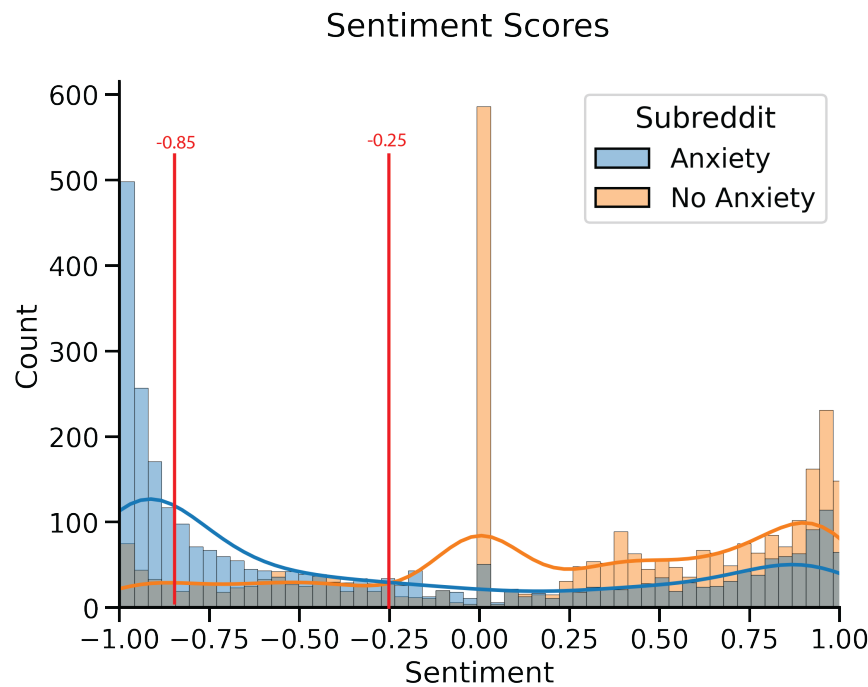
Adjusted parameters

Methods to detect expressions of stress within short informal messages were SentimentIntensityAnalyser extended from Classifying models, where the ajdusted term weights were evaluated to improve performance of Classification.
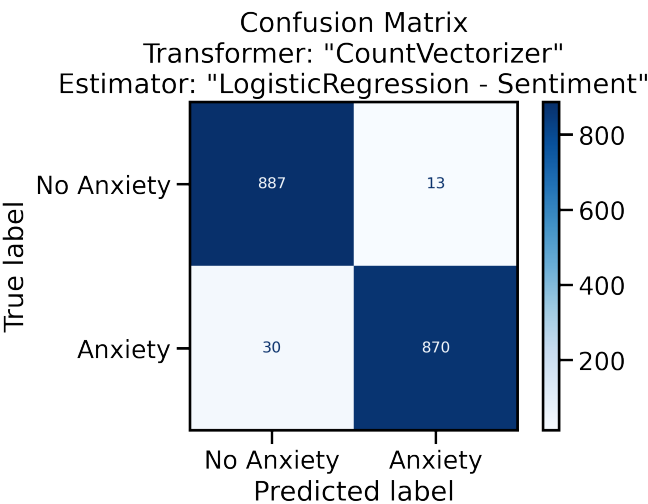
WOOOOORRRRIED vs **WORRIED**

???? AND **?!?!?** AND **!!!!**

👍🥰😆😡😮😢❤️

Threshold denomination

Sentiment Scores

BEST PREDICTION RESULTS

Accuracy: 98%

Precision: 99%

F1 - score: 98%

Recall (Sensitivity): 97%

Specificity (True Negative Rate): 99%

Confusion Matrix
Transformer: "CountVectorizer"
Estimator: "LogisticRegression - Sentiment"

DELIVERABLE
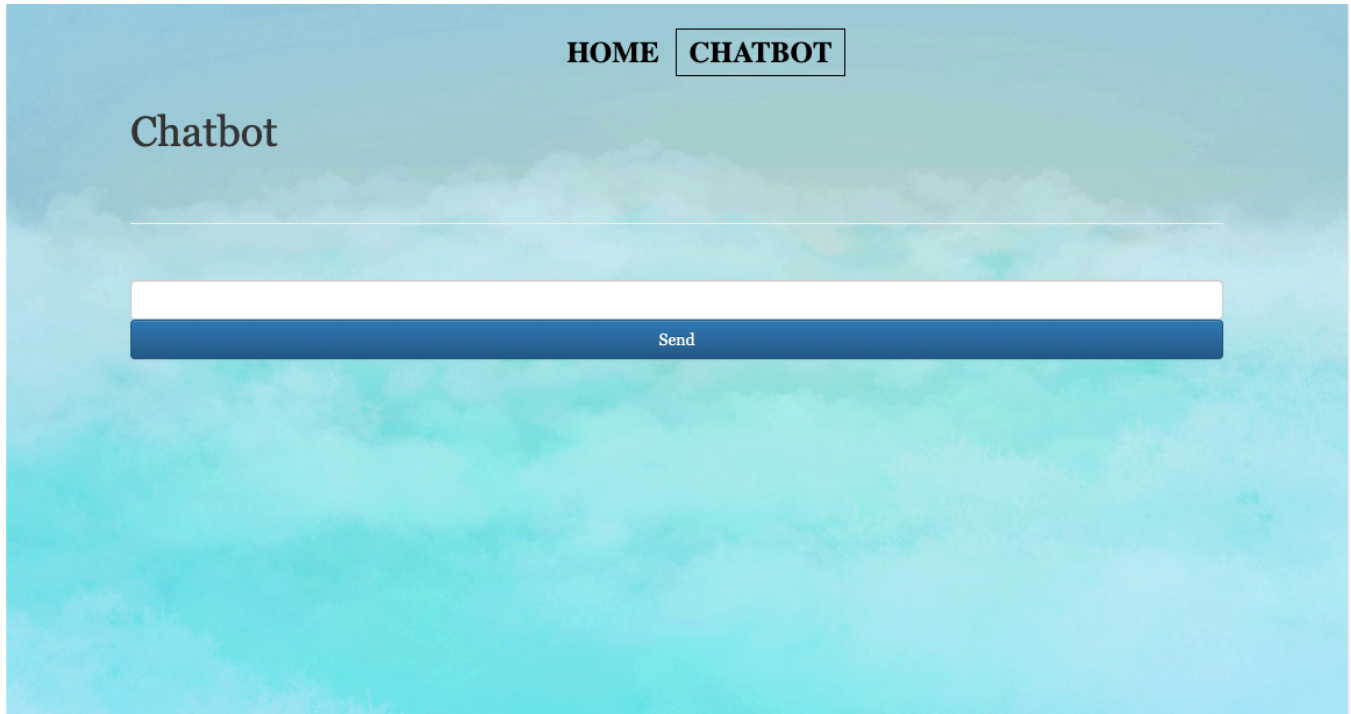
The chatbot is able to classify the degree of anxiety on the text provided and open a window for conversation as an immediate action to provide any support. Implementing more in depth analysis to understand real sentiment and degree of possibility to a severe anxiety.

CONCLUSION

Overall performance of models and sentiment analysis confirms how well we can accurately classify 3 levels of anxiety. It needs to be extended and tested in different contexts and tailored with specific types of anxiety linguistics.