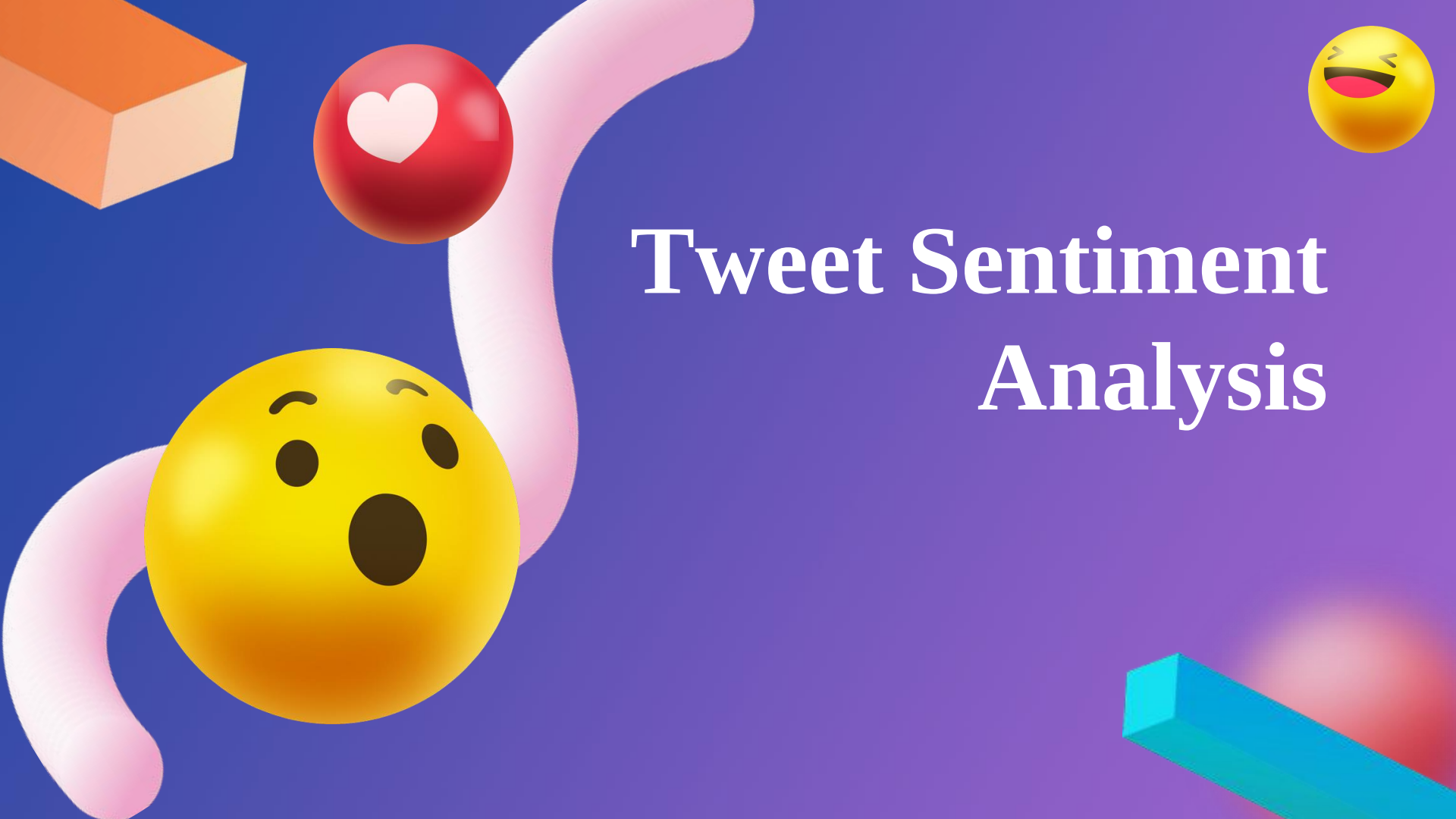
Tweet Sentiment
Analysis

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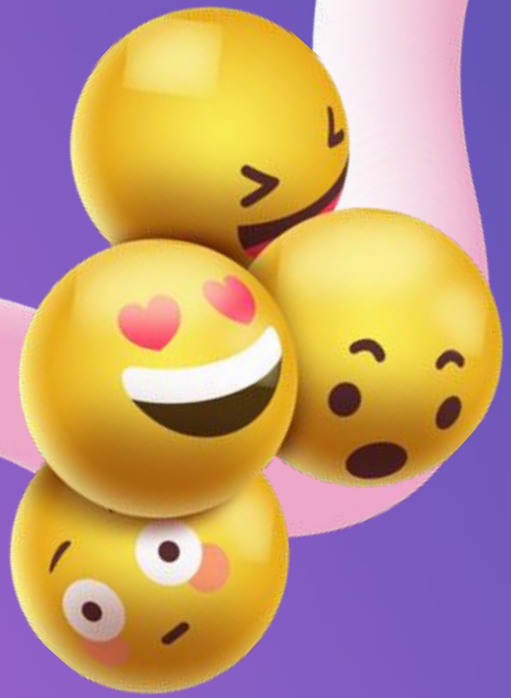
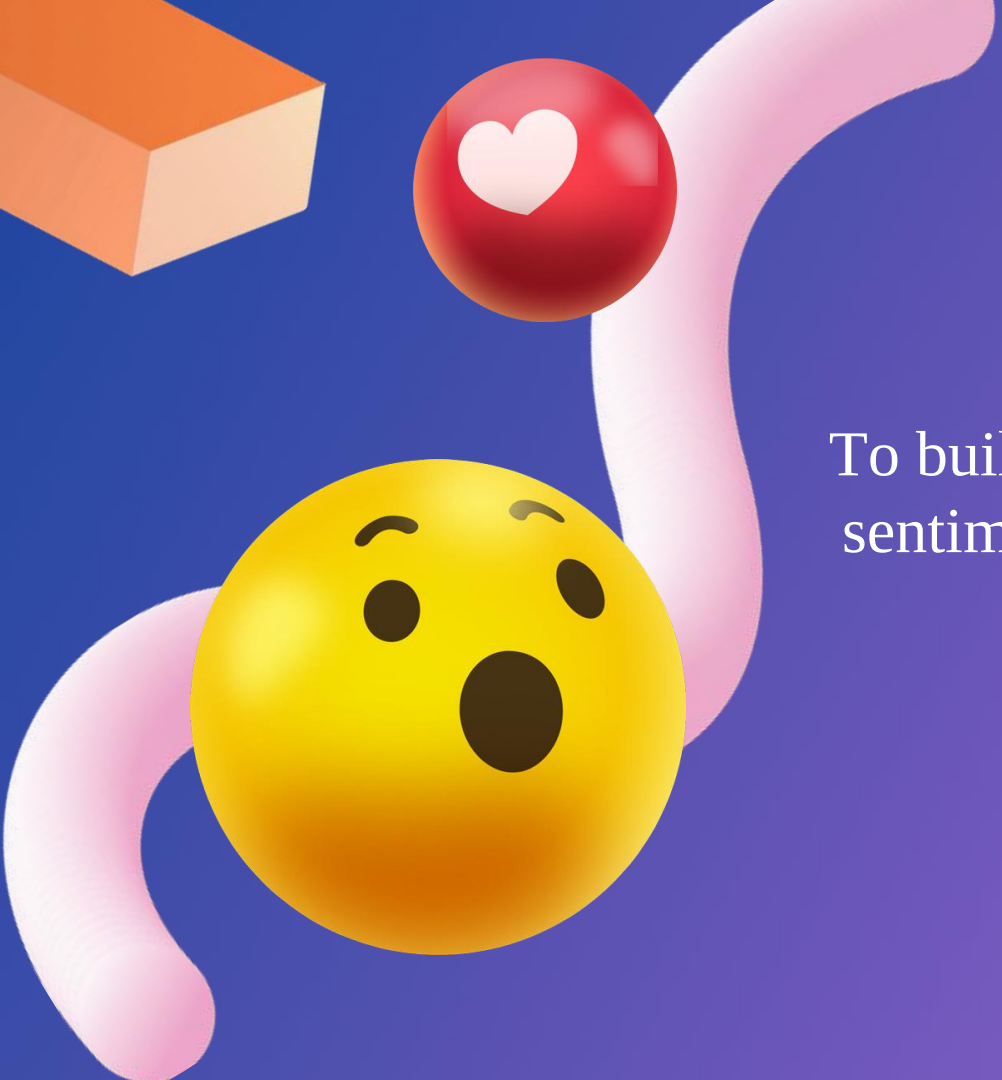


Business Understanding

Apple and Google have been constantly innovating and changing their products, services, and customer experiences. This has led to a surge in customer feedback and a need for companies to analyze and understand the sentiments expressed by their users.



Objective

To build a model that can rate the sentiment of a tweet based on its content

Data Understanding

Contributors evaluated tweets about multiple brands and products. The crowd was asked if the tweet expressed positive, negative, or no emotion towards a brand and/or product. If some emotion was expressed they were also asked to say which brand or product was the target of that emotion.

Modelling

The following models were used during the developing of a machine learning model that can predict sentiments expressed in tweets about topics or brands into specific classes- positive, negative or neutral is a huge challenge for companies like Apple and Google.

Logistic Regression

Decision Tree Classifier

Naive Bayes model

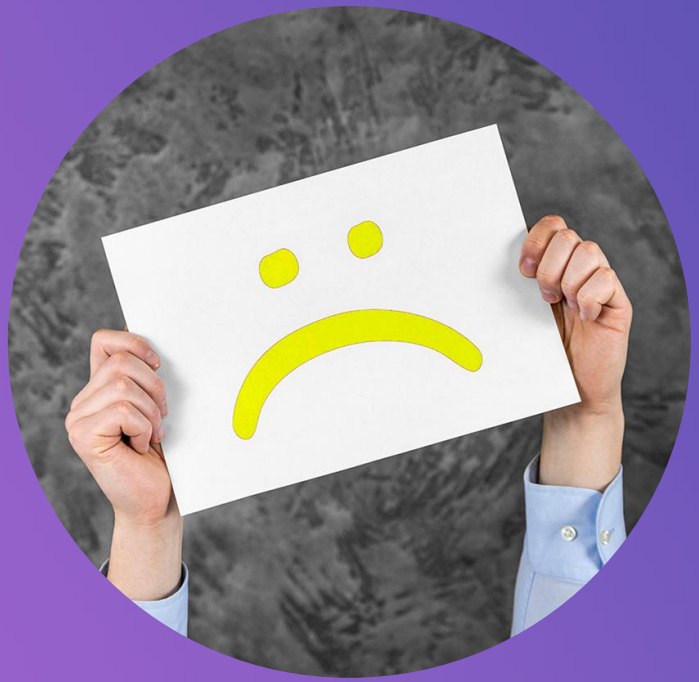
Support Vector Classifier

Deep Learning models

Evaluation

In this project, multiple evaluation metrics were used to assess the performance of different models in predicting emotions for different tweets. These metrics provided insights into the accuracy, precision, recall, and overall predictive power of the models.

Conclusion



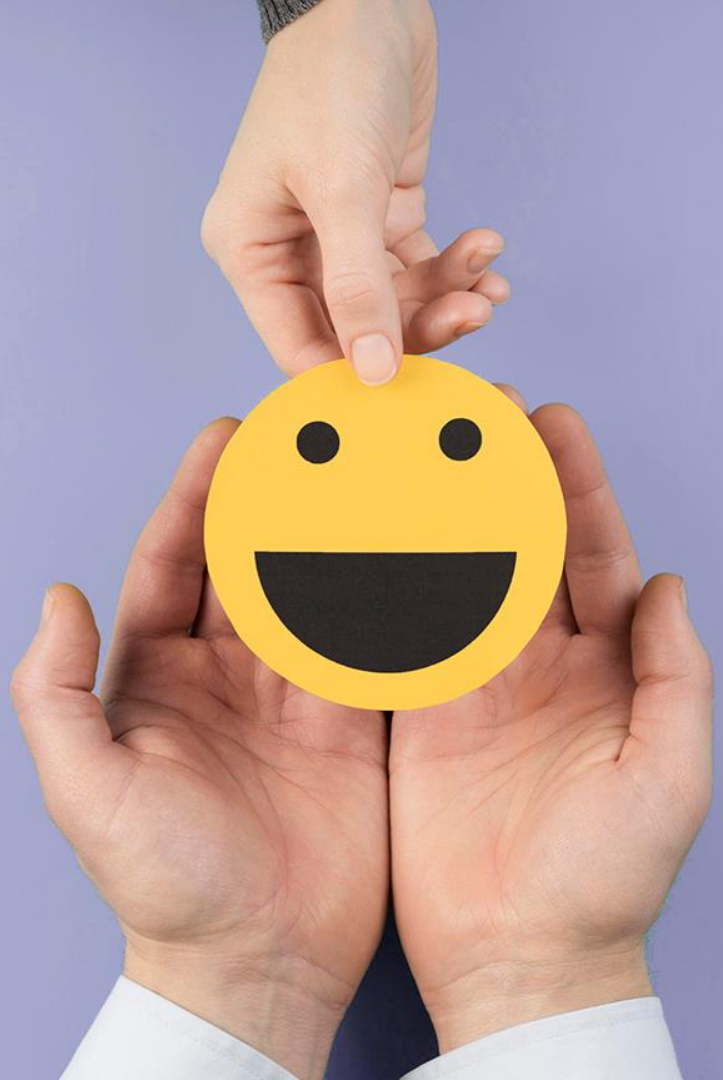
Based on the evaluation metrics (accuracy, classification reports), the Support Vector Classifier outperformed other models with the highest test accuracy. This model was selected as the final model for predicting emotions. The following are the results of the metrics used during the modeling:

Support Vector Classifier

Train Accuracy: 0.88

Test Accuracy: 0.72

This model can help target entities identify emotions whether positive negative or neutral.



THANK YOU!

Any Question?