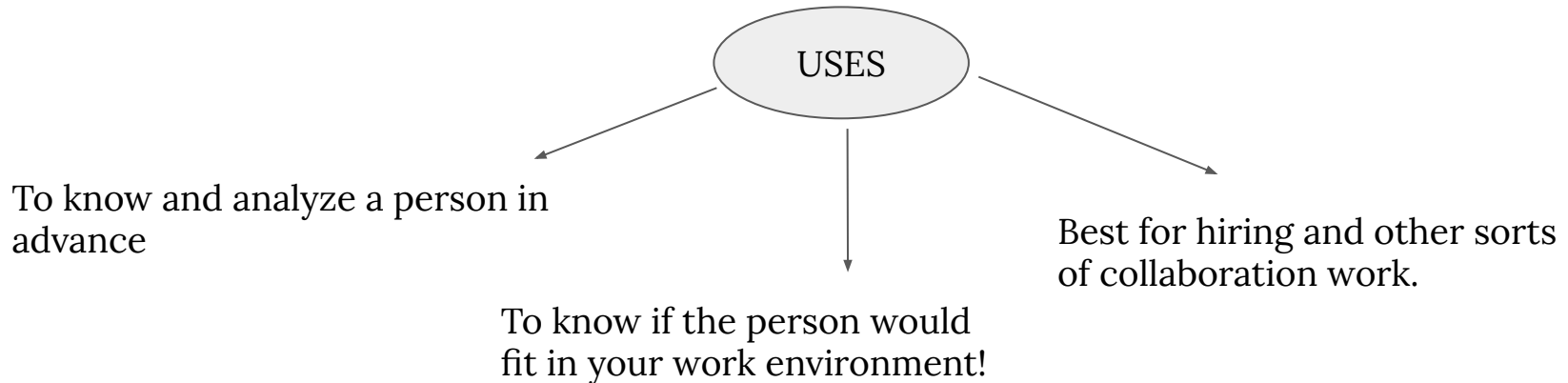
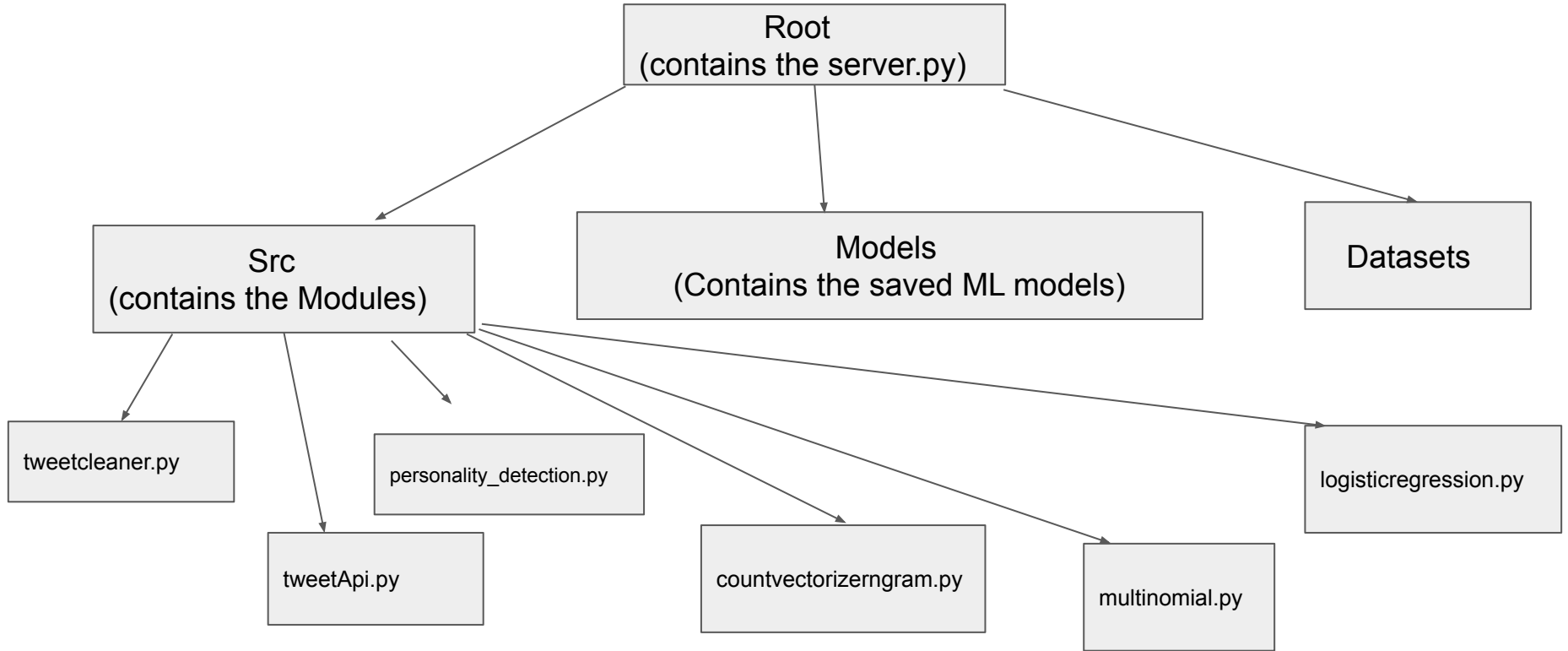


Project Name : Pantomath

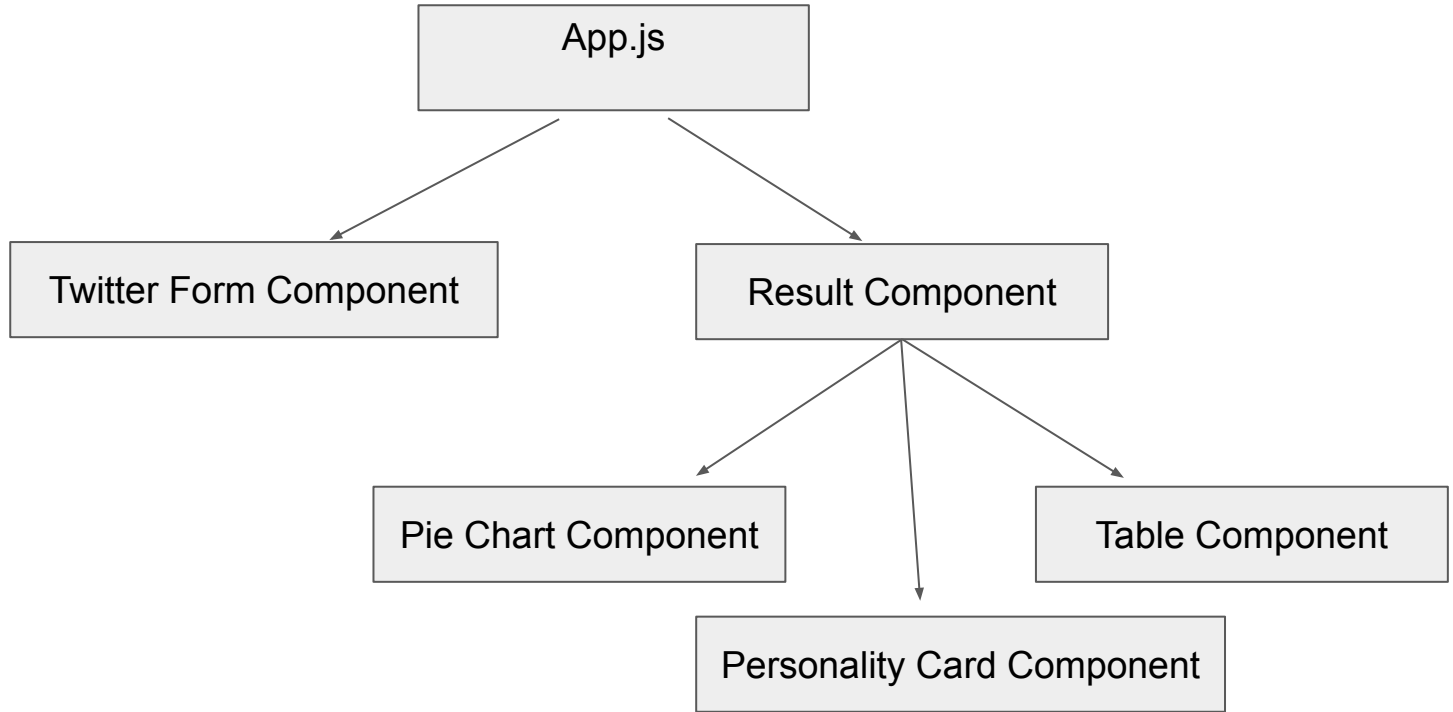
A twitter analysis based web application that predicts the personality and the number of hate speeches given by the user.



Code Flow for Backend



React Component Tree



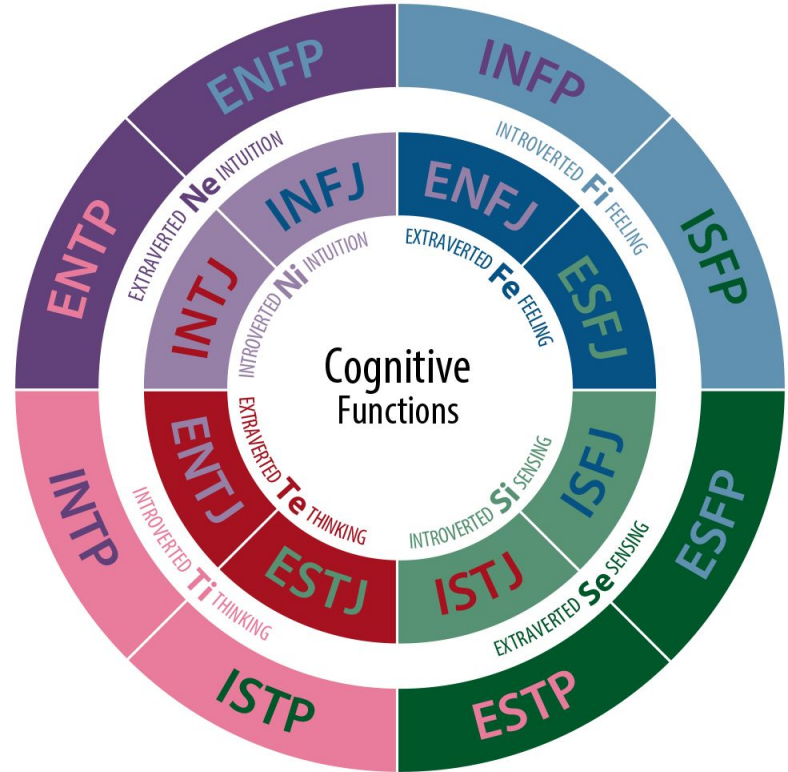
Hate Speech Detection

- For hate speech detection, we have used **Logistic Regression** to classify the tweets.
- We have two classes, 0 for not a hate speech and 1 for hate speech.
- We compare the accuracy score and F1 score with other algorithms and select the best model.



Personality Detection

- The classification task was divided into 16 sub-classes and further into four binary classification tasks.
- Each one of these binary classes represents an aspect of personality according to the MBTI personality model.
- After extracting the features, we then train and test for the most appropriate model.
- We have used **Support Vector Machine (Linear SVC)** for this purpose.



GUARDIAN

ISTJ

Inspector

Introverted Sensing
Thinking Judger

Si Te Fi Ne

ESTJ

Supervisor

Extroverted Sensing
Thinking Judger

Te Si Ne Fi

ISFJ

Protector

Introverted Sensing
Feeling Judger

Si Fe Ti Ne

ESFJ

Provider

Extroverted Sensing
Feeling Judger

Fe Si Ne Ti

ARTISAN

ISTP

Crafter

Introverted Sensing
Thinking Judger

Ti Se Ni Fe

ESTP

Promoter

Extroverted Sensing
Thinking Perceiver

Se Ti Fe Ni

ISFP

Composer

Introverted Sensing
Feeling Perceiver

Fi Se Ni Te

ESFP

Performer

Extroverted Sensing
Feeling Perceiver

Se Fi Te Ni

RATIONAL

INTJ

Mastermind

Introverted iNtuitive
Thinking Judger

Ni Te Fi Se

ENTJ

Fieldmarshal

Extraverted iNtuitive
Thinking Judger

Te Ni Se Fi

INTP

Architect

Introverted iNtuitive
Thinking Perceiver

Ti Ne Fi Se

ENTP

Inventor

Extraverted iNtuitive
Thinking Perceiver

Ne Ti Fe Si

IDEALIST

INFP

Healer

Introverted iNtuitive
Feeling Perceiver

Fi Ne Si Te

ENFP

Champion

Extraverted iNtuitive
Feeling Perceiver

Ne Fi Te Si

INFJ

Counselor

Introverted iNtuitive
Feeling Judger

Ni Fe Ti Se

ENFJ

Teacher

Extraverted iNtuitive
Feeling Judger

Fe Ni Se Ti

Components Explanation

- 1) **App** : This is the root component and holds all the other components.
- 2) **Twitter Form Component** : Allows users to enter the twitter handle and to choose between tweets and replies . The data is sent to the root .
- 3) **Result Component** : Displays the result that is being fetched from the API.
- 4) **Pie Chart Component** : Displays the results graphically in the form of a pie chart.
- 5) **Table Component** : Displays the hate speeches in the tabular format.
- 6) **Personality Card Component** : Displays the personality type in this card.

Web Application

