

# COVID-19 Vaccines Tweets Analysis

 T5 Bootcamp Data Science Project - Manal Allahyani

# Project Goal

Understand people's emotions about the covid-19 vaccines by analyzing the tweets using machine learning models

# COVID-19 Vaccines

Some of the Covid-19 vaccines: Pfizer/BioNTech, Sinopharm, Sinovac, Moderna, Oxford/AstraZeneca, Covaxin, and Sputnik V.

# COVID-19 Vaccines Tweets

The dataset is provided in .csv format from Kaggle. It contains 19,3272 tweets, each tweet has 15 features.

# Process Data



Cleaning the text feature



Labeling the text



Adding extra features



Applying TfidfVectorizer on text

# Modeling

A random forest (RF) model was used to classify the tweets. The official metric was the accuracy of the model, where the model tested on the accuracy, precision, recall, and F1 score. The result of RF:

- Accuracy: 97%
- Precision: 95%
- Recall: 96%
- F1: 95%

# Deployment

I used streamlit to deploy and visualize the final result.

## Covid-19 Vaccines Analysis

Use the pre-trained model to analyze your emotions about COVID-19 Vaccines ...!

text

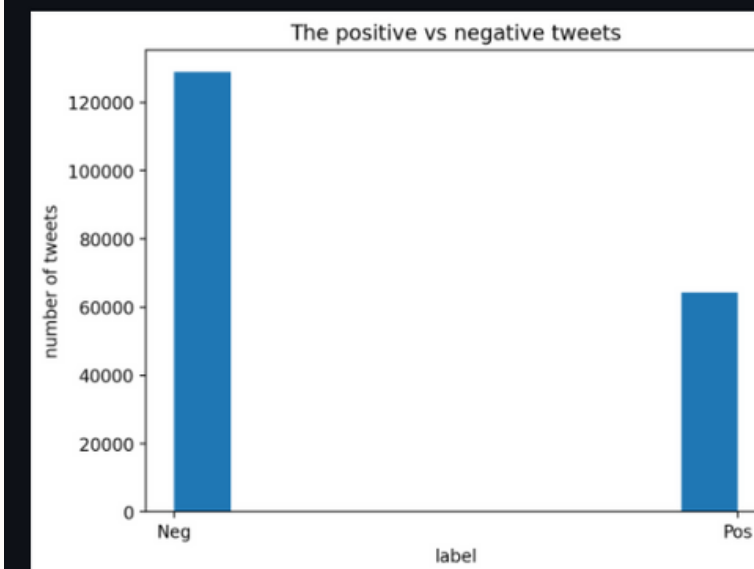
5th year medical student waited to get Pfizer's jab because it was presented as the "safest." Ten minut

Predict

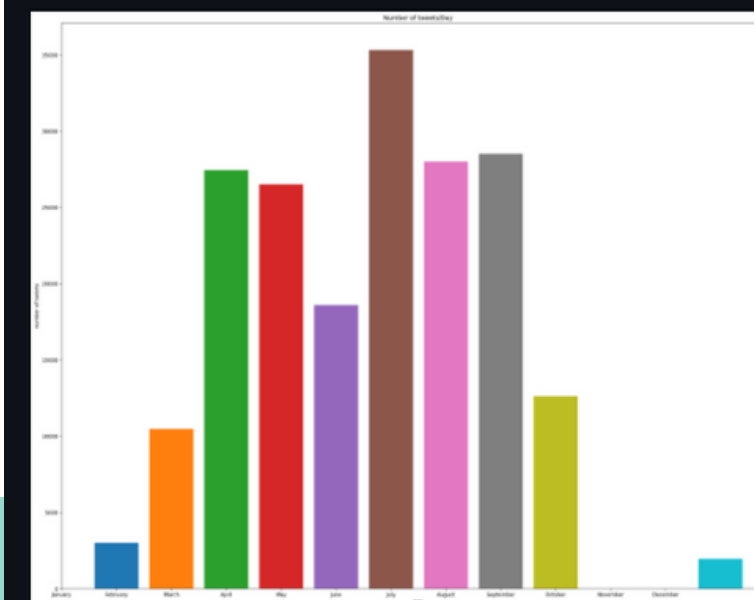
Your emotions about covid-19 vaccines are Negative

Loading data...done!

### Number of positive/negative tweets

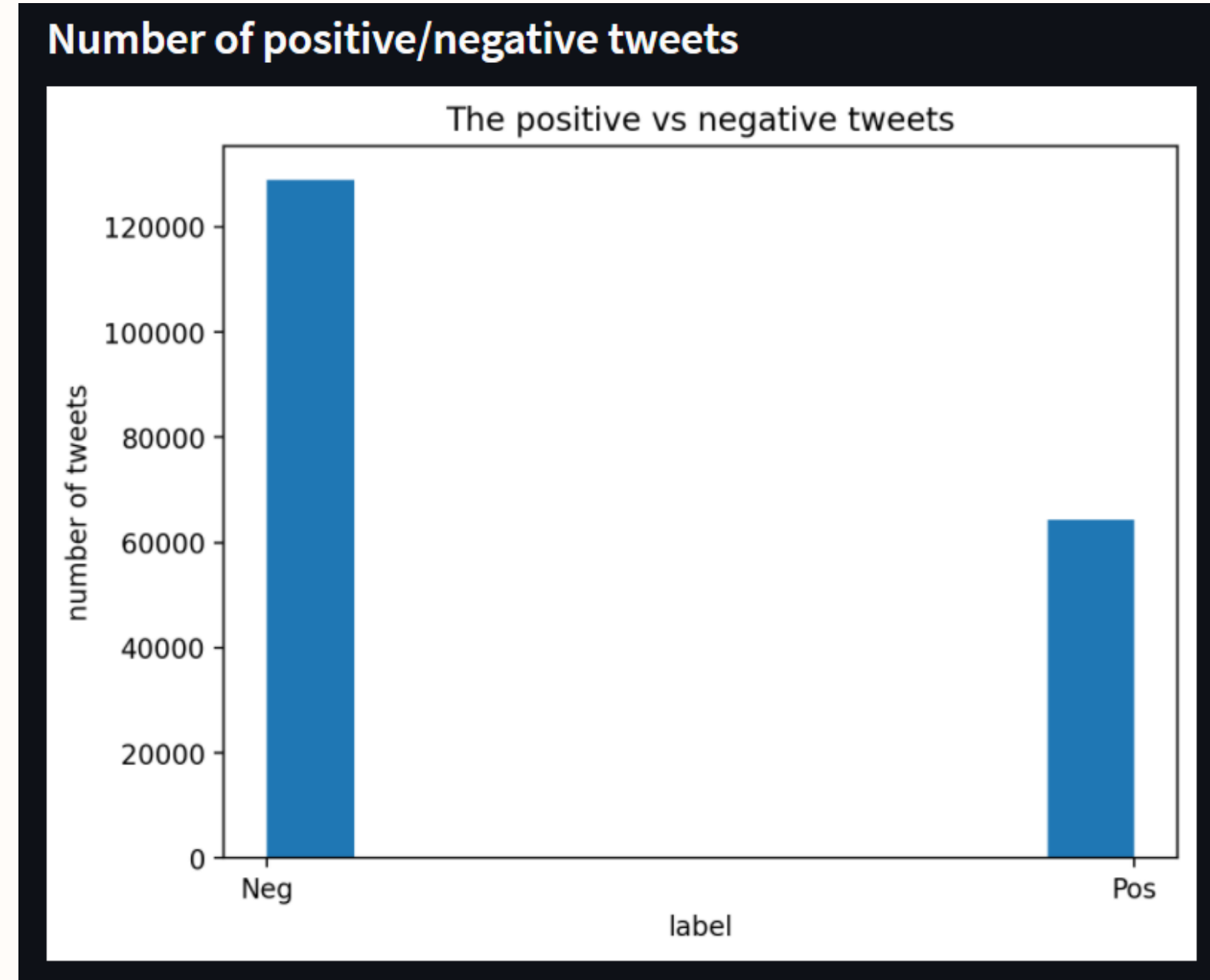


### Number of tweets per month



# Deployment

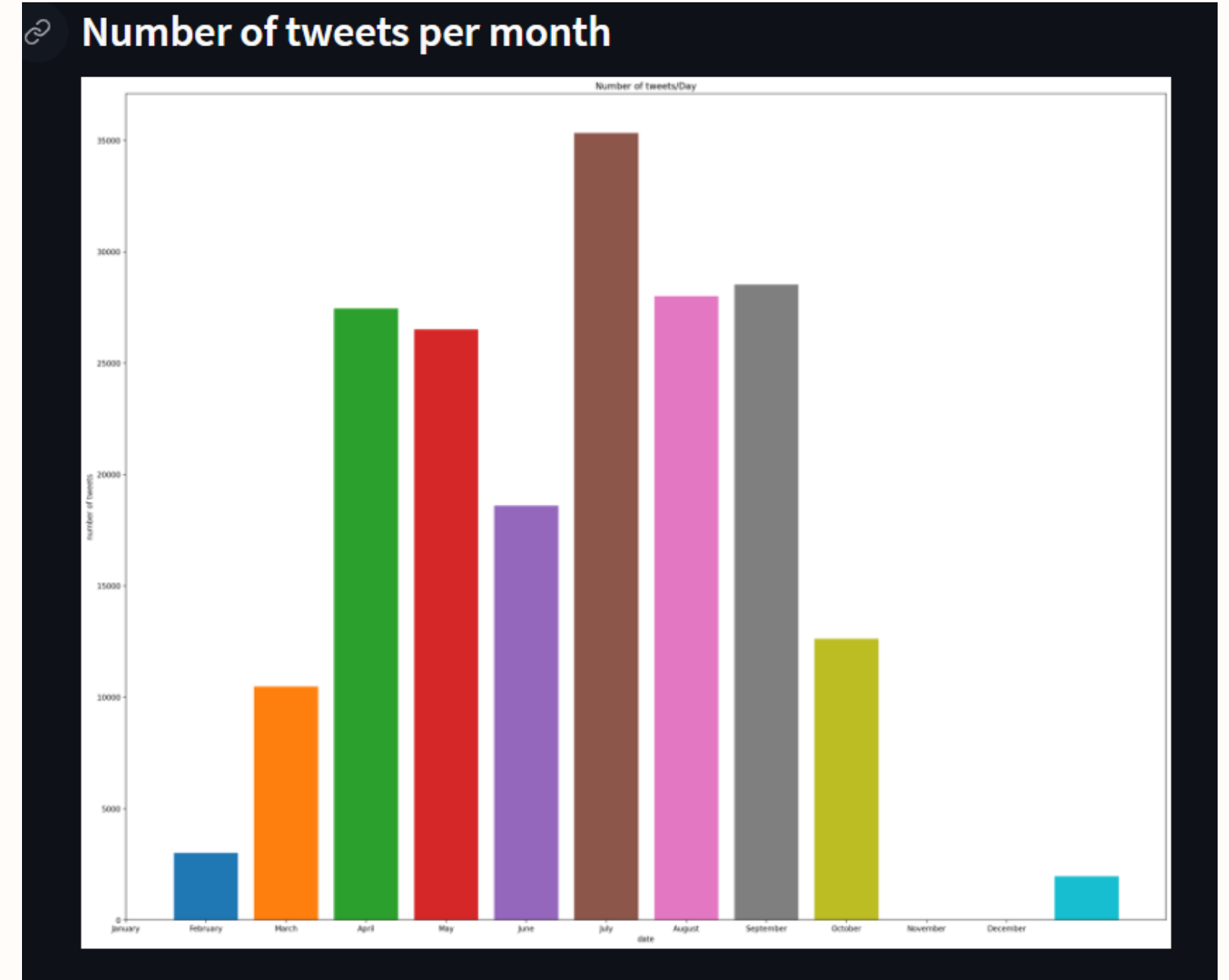
I used streamlit to deploy and visualize the final result.





# Deployment

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Input:

The 5th-year medical student waited to get Pfizer's jab because it was presented as the "safest." Ten minutes later, Arooj began having spasms, then seizures, and lost use of her legs. Arooj has asked her family to document these episodes for medical research.

text

5th year medical student waited to get Pfizer's jab because it was presented as the "safest." Ten minut

Predict

Your emotions about covid-19 vaccines are Negative

**Thanks**