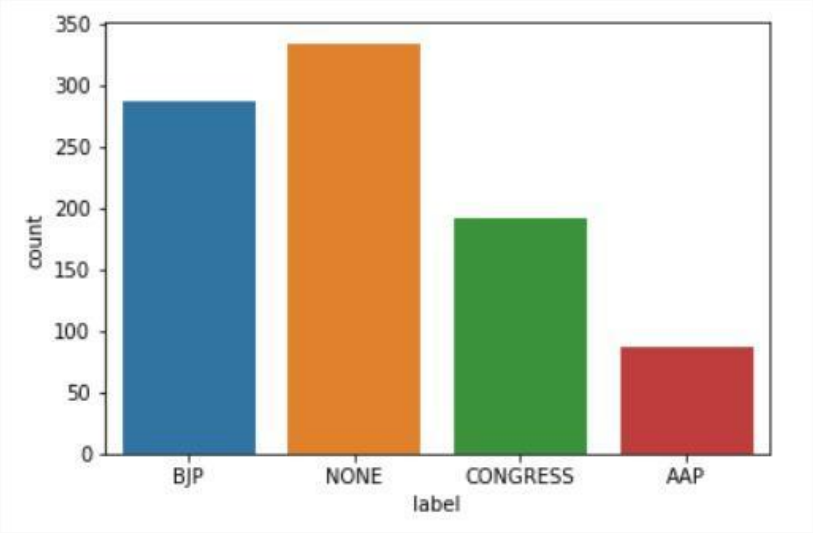
Project Title
spotBias-Identifying Political Bias in News Article.

Motivation
The major reason we chose this issue was to determine the political bias in a news story. Certain media sources tend to produce articles that support a political party's point of view or propaganda. As a result, they approach news items with a predetermined agenda. Because the general public is frequently unaware of a Media Outlet's preferences, they tend to believe them and the ideas/incidents mentioned in their publications. We believe that the general public must know the truth (before forming an opinion) without succumbing to the bias of media outlets or bloggers' published articles.

Dataset
The dataset was built using BeautifulSoup on News Catcher API and Google News.It currently consists of roughly 900 articles and respective annotations. The annotations represent the bias in the news articles. Link to the dataset



Preprocessing steps:
Preprocessing is needed to clean the dataset so that we get better results. We have used the NLTK library for the preprocessing of our dataset. We have performed preprocessing on the dataset as well as the input query.
Various steps followed are:

- Converted text to lowercase.
- Removed all punctuations from the dataset.
- Removed all the blank spaces.
- After that, we have tokenized the text using word_tokenizer from the NLTK library.
- After that, remove the stopwords using the NLTK library.

METHODOLOGY

- First implemented the above-mentioned preprocessing steps.
- Then we followed two approaches: With feature selection and Without feature selection.
- In with feature selection, we did the following steps:
    - Created table dictionary to keep class count for each term.
    - Calculated mutual information for each term in each class.
    - Created a word map and assigned each word to a unique id.
    - Then we created a method to select features for each class.
- Then we applied Count vectorizer and TF-IDF Vectorizer and tried different classification models such Multinomial Naive Bayes, SVM, KNN, Logistic Regression, and Random Forest with hyperparameter tuning.
- We develop the application using these tech/framework NewsCatcherAPI, HTML,CSS, Bootstrap, FLASK, SQLite3.

Build Status

We have deployed the spotBias-Web Application in our local server- Ubuntu.

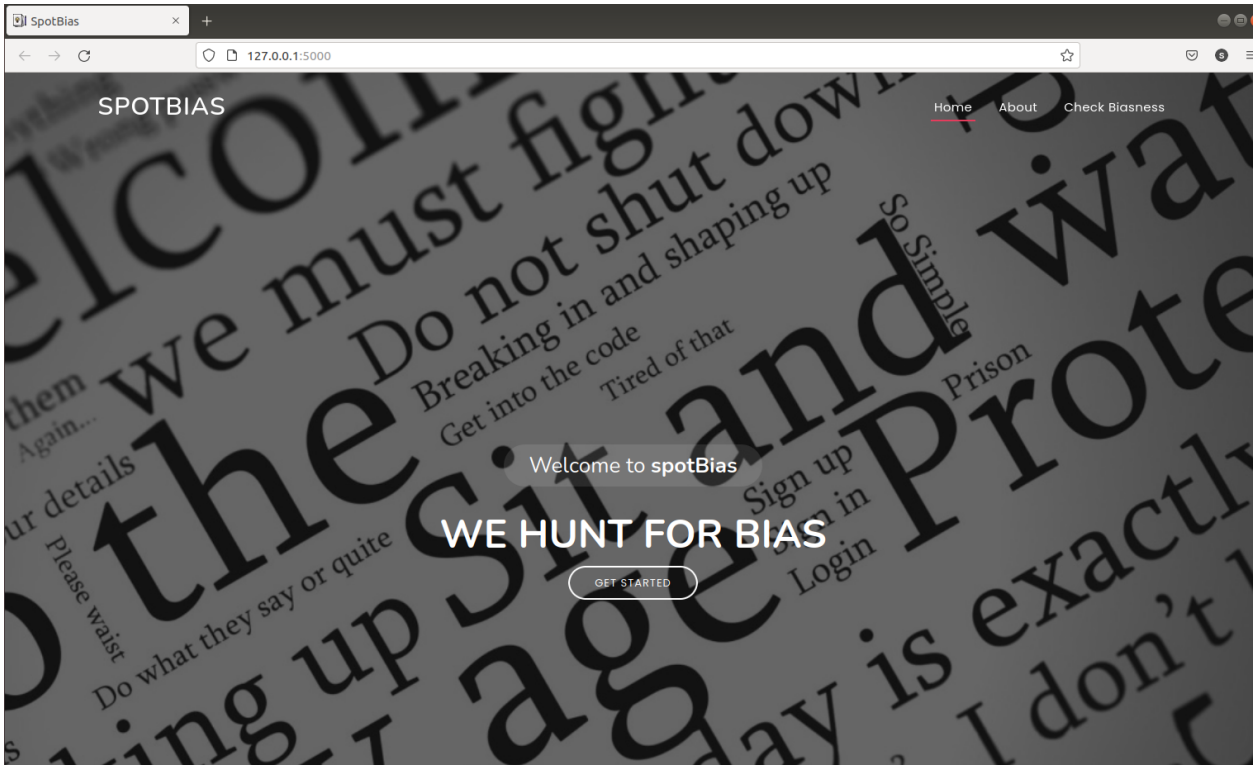
Framework

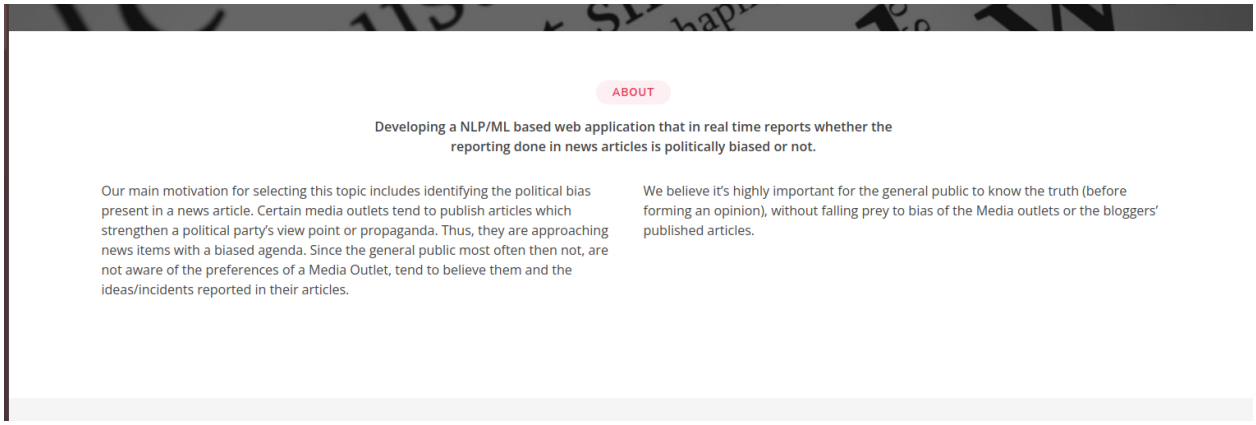
Front End: HTML, CSS, Bootstrap
Back End: FLASK
News Catcher API
Database Connectivity SQLite3
Google News Republic News NDTV News

Features

1. Fetch News: 4 different News Articles will be fetched and their headings will be displayed. Users can select from any of the 4 headings and the selected news article will be displayed.
2. Predict Biasness: Our web application will identify if the selected news article is biased towards any political party (BJP, Congress, and AAP) or not.
3. Database Connectivity: In our database, we'll save the selected news article, predicted biasness, and what users think about which political party it's biased.

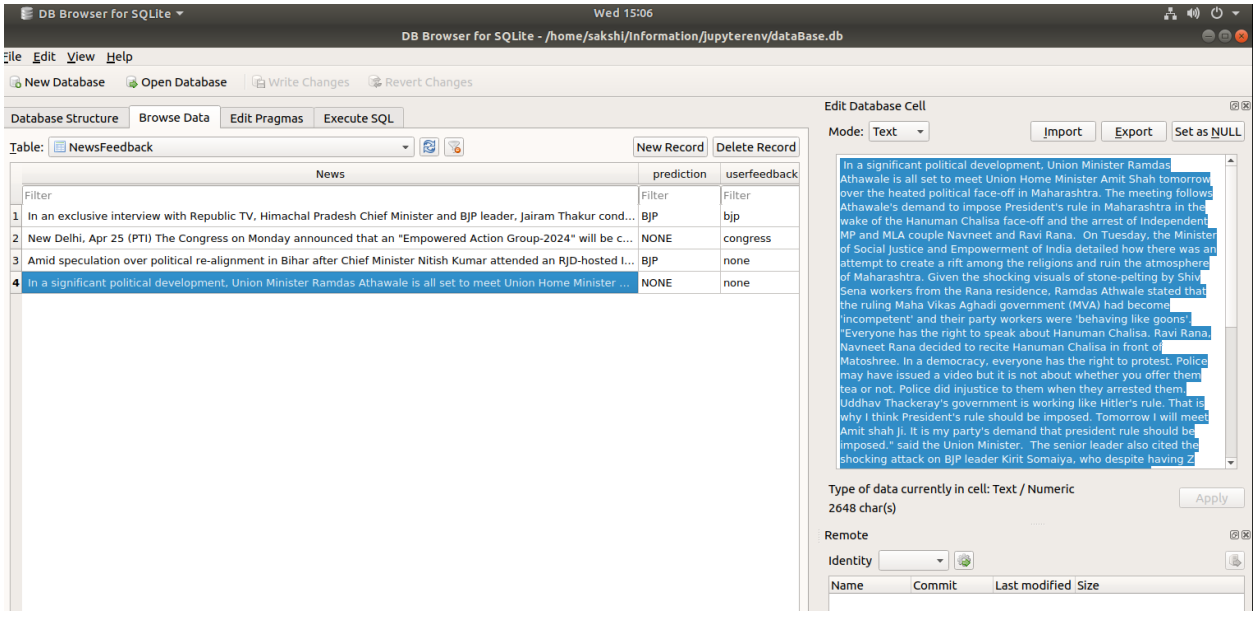
Screenshots






Fetch News Article
Fetch News
Number of Fetched NEWS : 4
List
Grid
Ramdas Athawale to meet Amit Shah on Wednesday amid Maharashtra Hanuman Chalisa row
Pakistan: Eminent journalists, activists appeal to govt to improve ties with India
On Jignesh Mevani's re-arrest, Congress says 'Assam govt fulfilling political agenda'
'No one wants to board a sinking ship': MP HM exults as Prashant Kishor dumps Congress
In a significant political development, Union Minister Ramdas Athawale is all set to meet Union Home Minister Amit Shah tomorrow over the heated political face-off in Maharashtra. The meeting follows Athawale's demand to impose President's rule in Maharashtra in the wake of the Hanuman Chalisa face-off and the arrest of Independent MP and MLA couple Navneet and Ravi Rana. On Tuesday, the Minister of Social Justice and Empowerment of India detailed how there was an attempt to
Predict Biasness
NEWS Baised Towards
Quick Survey:
As per your understanding to which political party this new article was biased?
BJP
Congress
AAP
None
Save

Database:


DB Browser for SQLite
Wed 15:06
DB Browser for SQLite - /home/sakshi/Information/jupyterenv/dataBase.db
File Edit View Help
New Database
Open Database
Write Changes
Revert Changes
Database Structure
Browse Data
Edit Pragmas
Execute SQL
Table: NewsFeedback
New Record
Delete Record
News
prediction
userfeedback
1 In an exclusive interview with Republic TV, Himachal Pradesh Chief Minister and BJP leader, Jairam Thakur cond... BJP bjp
2 New Delhi, Apr 25 (PTI) The Congress on Monday announced that an "Empowered Action Group-2024" will be c... NONE congress
3 Amid speculation over political re-alignment in Bihar after Chief Minister Nitish Kumar attended an RJD-hosted I... BJP none
4 In a significant political development, Union Minister Ramdas Athawale is all set to meet Union Home Minister ... NONE none
Edit Database Cell
Mode: Text
Import
Export
Set as NULL
In a significant political development, Union Minister Ramdas Athawale is all set to meet Union Home Minister Amit Shah tomorrow over the heated political face-off in Maharashtra. The meeting follows Athawale's demand to impose President's rule in Maharashtra in the wake of the Hanuman Chalisa face-off and the arrest of Independent MP and MLA couple Navneet and Ravi Rana. On Tuesday, the Minister of Social Justice and Empowerment of India detailed how there was an attempt to create a rift among the religions and ruin the atmosphere of Maharashtra. Given the shocking visuals of stone-pelting by Shiv Sena workers from the Rana residence, Ramdas Athwale stated that the ruling Maha Vikas Aghadi government (MVA) had become 'incompetent' and their party workers were 'behaving like goons'. "Everyone has the right to speak about Hanuman Chalisa. Ravi Rana, Navneet Rana decided to recite Hanuman Chalisa in front of Matoshree. In a democracy, everyone has the right to protest. Police may have issued a video but it is not about whether you offer them tea or not. Police did injustice to them when they arrested them. Uddhav Thackeray's government is working like Hitler's rule. That is why I think President's rule should be imposed. Tomorrow I will meet Amit shah Ji. It is my party's demand that president rule should be imposed." said the Union Minister. The senior leader also cited the shocking attack on BJP leader Kirit Somaiya, who despite having Z
Type of data currently in cell: Text / Numeric
2648 char(s)
Apply
Remote
Identity
Name
Commit
Last modified
Size