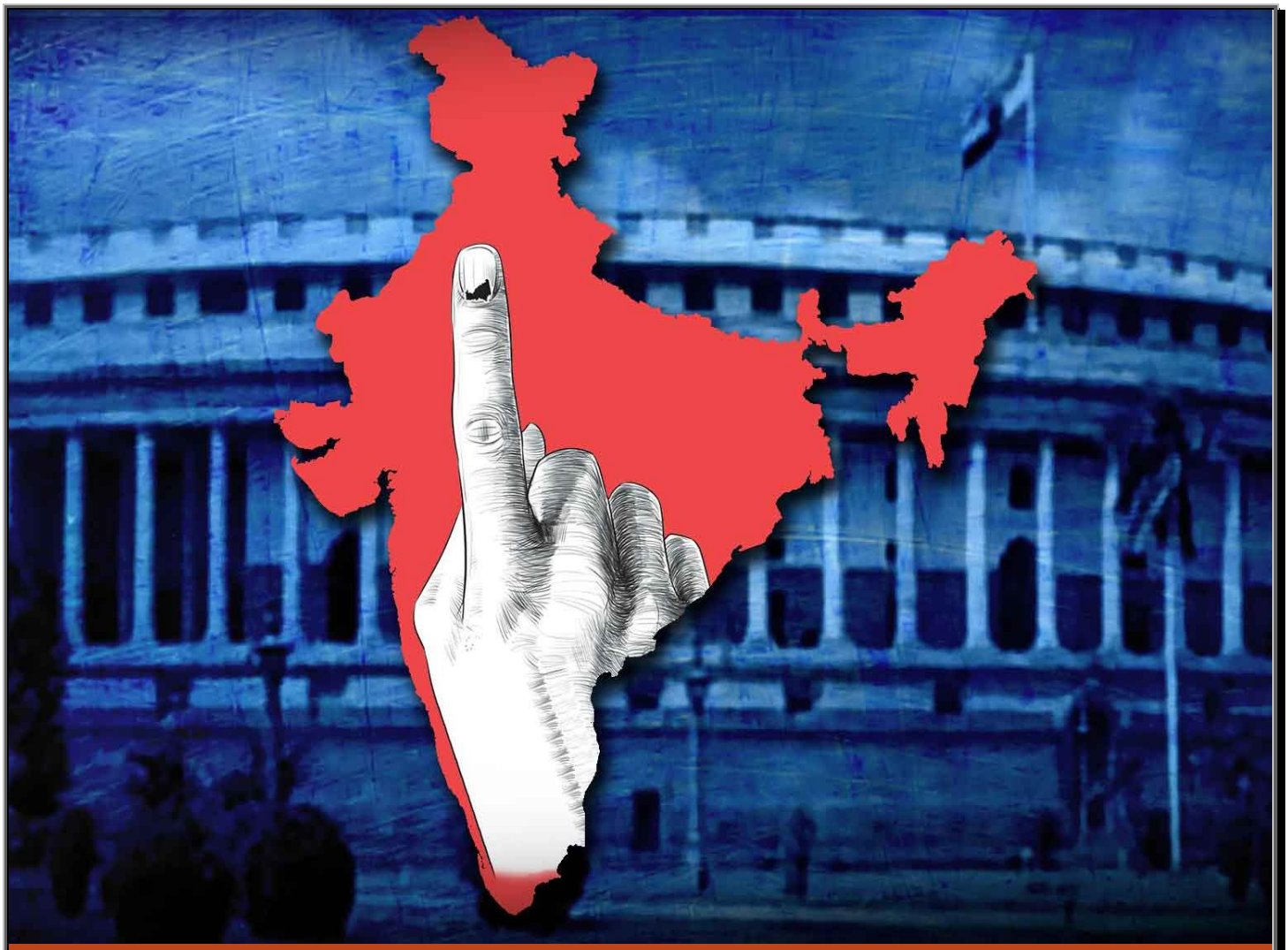


Project Report:-
CSD345-
SOFTWARE DESIGN LAB

ELECTION UPDATES PORTAL

Submitted to:

Dr. Snehasis Mukherjee

Mr. Kapil Vuthoo

Submitted By:

Aditi Rai, 1910110029

Ayyala Karthik, 1910110109

Damera Ajitha, 1910110126

Aastha Dogra, 1910110464

Pathipati Sricharan, 1910110472

(Group 18)

Abstract

This paper consists of the information related to the development and usage of our **election update portal**. This site is highly designed for people who are interested in knowing about recent election updates. This site also provides information that helps the people who are unaware of the election procedures and many other things related to it. People can interact with a chatbot provided so that they learn more about elections.

➢ Problem Description

The problem statement was to create a web application software where we can list the Election Updates. In India elections happen all the time in different states. So it is essential for the citizens to be up-to-date with all related information. We can list current news, updates, hot topics, controversies, candidates contesting, top tweets, opinions of various experts, poll predictions, results etc. The users can get updates on the elections, share their opinion and feel more involved in Elections using this portal.

It includes features like **live news**, **detecting hate speech**, **option to sign-up** or **create an account.**

➢ Technical Aspects

❖ WordPress

It is used to develop initial structure and design of the website.

❖ HTML

To add additional features to site.

❖ CSS

To design the site.

❖ JS

To perform linking and add functionality to the site.

❖ Bootstrap

To add bootstrap and pre-designed features given in bootstrap for site designing.

❖ Botsup.io

For building and previewing the chatbot.

❖ SQL

To store the entries that we made while logging into the portal.

➢ Introduction

Election Updates Portal

Aim: Our main objective is to create a user-friendly interface which enables a user from any place across India to look at the state wise election updates at one place .A user will be able to comment his/her opinion only after logging into the site. We have added information about the state election which gives a detailed view about constituency, region, position, person, party they belong to etc.

➢ Implementation

Our Project is meant for showcasing the election updates to the people across different states of India.

When we go to the main page, we can find a navigation bar full of buttons named Home, Lok Sabha Election, State Election, Live News, Exit Polls, and Login.

❑ HOME

This makes the user stay on the same page and lets the user to tour the page by scrolling in the required direction. In this section we can see a learn more button .If the user wants to learn more about the Indian Election system, then he/she can use this option to know about the history of the Indian election system. We can also find the list of former prime ministers, presidents over here.

We have also included about the present political scenario in India. This states about the present ruling party, present PM etc. This section also contains space for displaying the states in which the elections are to be held

soon. We can also learn more from the information displayed below or we can go to the more updates option to look at the news updates.

During the time of elections, we can see the hashtag trend running across the netigens. For that case we have included trending hashtags and some twitter links to our home page.

We have also included latest news updates and top political news lines too. These news updates will change for every 30 min. We can find 2 lines of info about each and every article. If any user wants to learn more about it, then they can click for more updates option.

❑ LOK SABHA ELECTION

We can find the information in the form of news clipping about lok sabha election in this section.

❑ STATE ELECTION

Here we can see the list of states where the elections will be held soon, from and to dates along with seats available. We can also see current election status if there is one going on. We can see the upcoming state election locations pointed with some markings.

The locations of the states of Upcoming Elections are represented in an Indian Map, by using JavaScript and Mapbox. We have taken the maps from MapBox and set the coordinates in such a way that Indian Map is visible on the Web Page. We used features from Mapbox to get a red coloured location symbol which we see in our day to day lives in Google Maps application.

We are inspired from Google Maps to include Maps in our Web application to help the Users of our website to help them get more accurate information about where the election are taking place. The Mapbox Script code is included in our Locations Web Page.

We have a data.json file where we stored the latitude and longitude information of the states where upcoming locations of the states are happening. We have written JavaScript code to take the latitude and longitude information from the data.json file and use them to represent the locations in the Map.

We can also find the recent assembly election results in numerical representation as well as pictographic representation. If we click on the image or markings, we can see a detailed view of constituency, region, position, person, party they belong to etc…

Users can also see the countdown for upcoming state elections.

Political leaders page consists of current Prime Minister, cabinet ministers, minister of state and info about the other members of council. Current ruling parties page gives us the info about state wise info, its chief minister, took office date and political party he/she belongs to. We can click on the name of the party to know more info about it and same happens for the state if you want to know more about it, also this will be same for chief ministers too. We can also see the Terms of the houses, number of seats available etc.

❑ LIVE NEWS

We have also included latest news updates and top political news lines too. These news updates will change for every 30 min. We can find 2 lines of info about each and every article. If any user wants to learn more about it, then they can click for more updates option.

The Live News is added to Web Application by using the NEWS API. We have got an API key and created a div in the web page. We used the API Key to embed the information from the NEWS Api to the div by writing javascript code.

❑ EXIT POLL

If there exists any elections going on at present, then we can see the exit poll results in this section.

❑ LOGIN

We have made a login portal which gives the right to the user to check the rate of hate in the comments they were passing .This login feature enables a person to create an account if there is no existing account by taking id as a primary key. We have used **MD5** for password hashing to prevent from cyber-attacks.

❑ CHATBOT

We have also implemented a WhatsApp linked chatbot, which enables the user to get solutions for their queries. The WhatsApp chatbot is built on no code approach using botsup. It is divided into structures and functional modules. These modules are interconnected by linking. It is internally set up using a sandbox.

After setting up the sandbox, next we can enter 'Start' to WhatsApp chat and initiate the interaction with the bot. To test the bot again on WhatsApp, send 'reset'. To de-link Sandbox in order to test another WhatsApp bot, send 'STOP'.

The purpose of this chatbot is to guide a user to main features of the Election portal and to keep them up to date with regards to matters pertaining to election in India in a more user friendly manner.

❑ HATE SPEECH PREDICTION

The user gets directed to this web page after he logs in and clicks on "Check if your opinion can be hurtful or offensive". This is based on the application of Machine Learning technique to categorize a piece of text into three distinct categories, which are "hate speech", "offensive language" and "neither".

The predictive model allowing users to enter any text they please in order to get a prediction about its category and be informed if their opinion is contributing to the hate present on social media platforms like twitter etc. The interpretation is also printed out so that user can get an idea on the analysis .The dataset used for training consists of various tweets and how they were classified by users.

The code consists of python modules used for cleaning of datasets using NLP concepts and libraries like re (For regular expressions) and nltk (for modules like stopwords, word tokenize, WordNet Lemmatizer etc.) Also it uses the LIME method to match the results of classifiers. The interface to enter the opinion uses html and css.

➢ Challenges Faced

❖ Lack of experience and time management

We faced an issue of time management also as there was a lot of content available and one goal could be achieved through various implementations. Deciding the approach was challenging as we had previously never done a project like this. But we still managed to complete the required sections before each demo.

❖ Challenge faced while developing chatbot

While developing chatbot the main issue which we faced was during its hosting using sandbox. The hosting of a WhatsApp business number to run the chatbot was costly and out of our budget. Hence, we found a botsup application which allows us to preview our chatbot free of cost. The only issue is that before running this, the admin must link your number to the chatbot. Also, if there are server issues, the chatbot will take time to work or will not work.

❖ Choice of topic and features

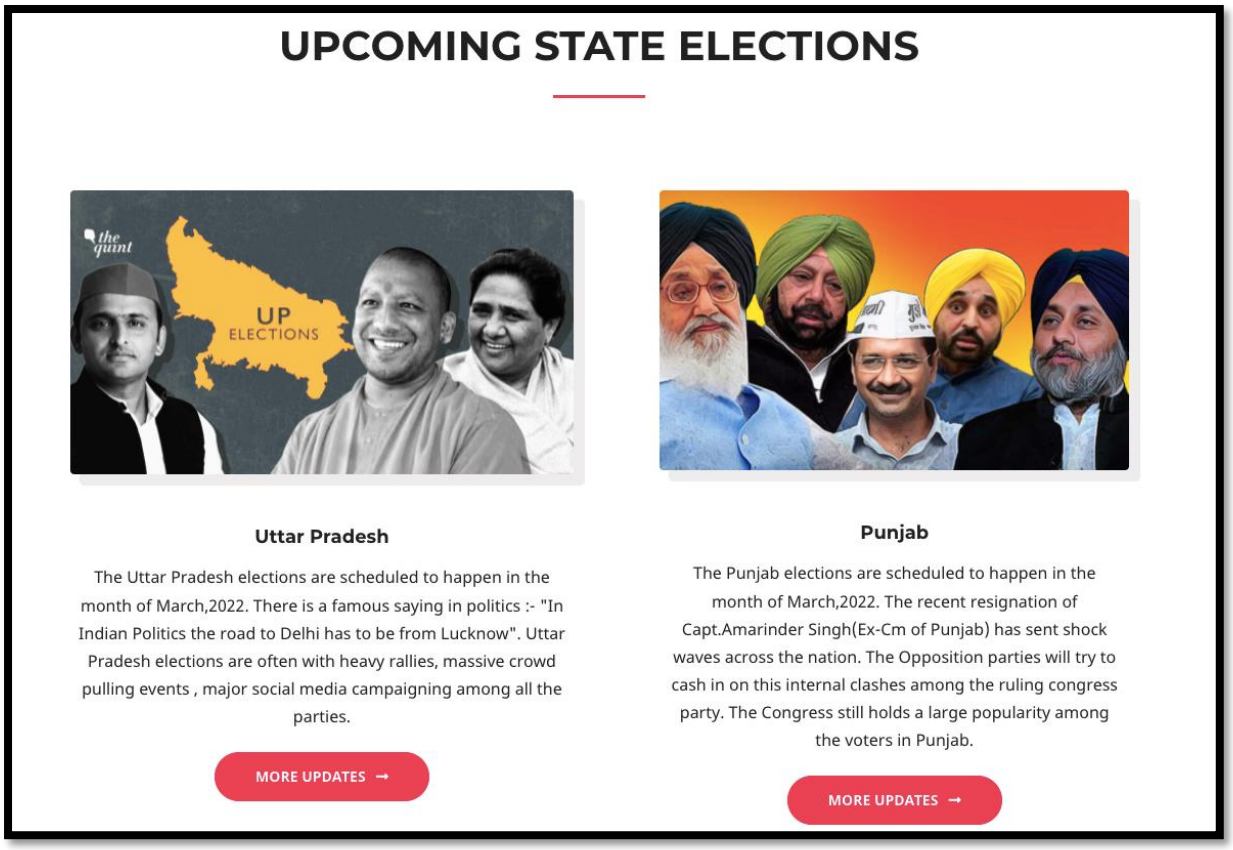
Our website has features like chatbot, live news, sign-up and login portal, Predictor to classify opinion as hate speech or offensive language, display of relevant tweets, display of locations on map for the places where elections are to take place, timer till elections and some other informative pages also. This made the project complex as we kept adding features and integrating them took time.

❖ Issue with server for hosting portals locally

We faced some issues with Xampp etc also this led to slowing our pace.

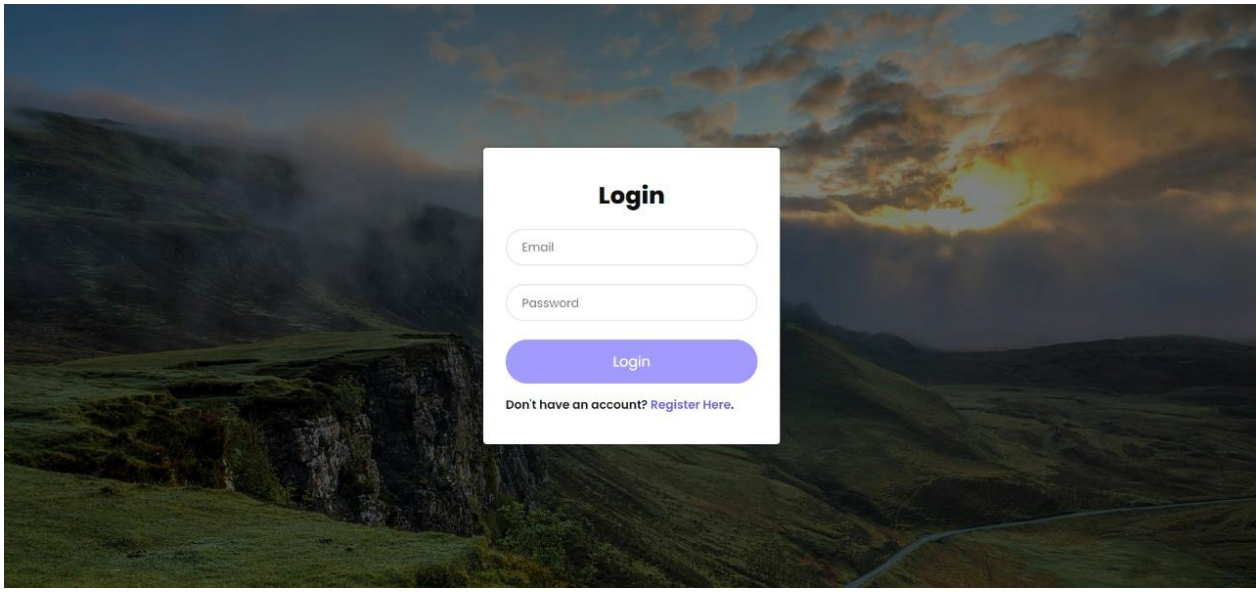
➢ Screenshots

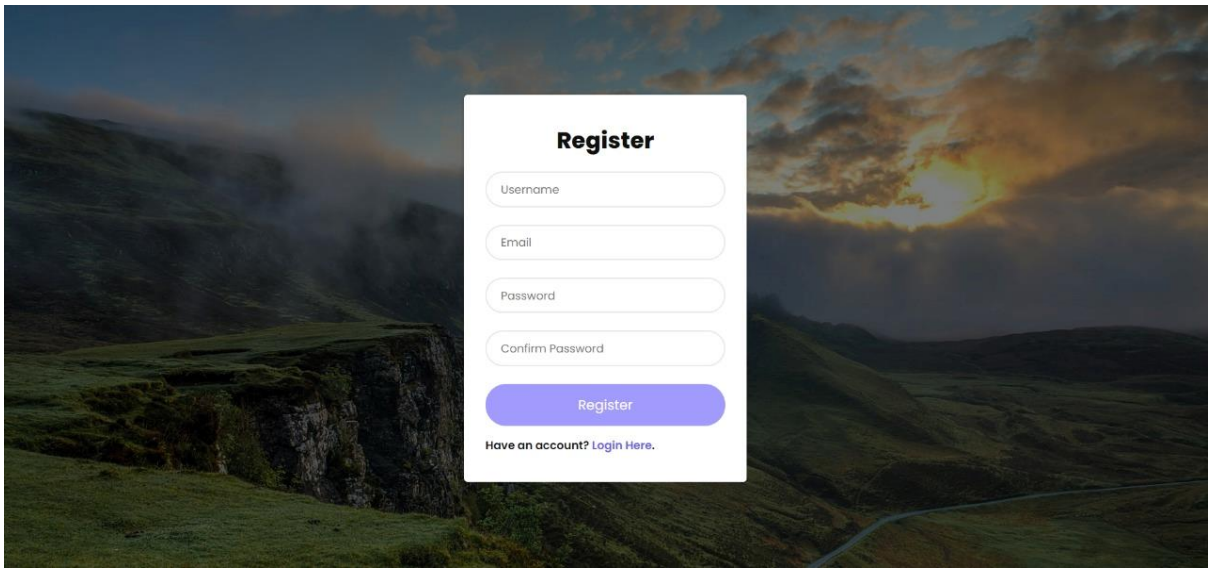
- **Main Page**



TOP TWITTER HASHTAGS-LOKSABHA ELECTIONS
nversation peaks during Lok Sabha electi
NYAY Scheme
First Phase of Polling
Devendra Fadnavis @Dev_Fadnavis · Nov 7, 2021
Replying to @Dev_Fadnavis
'PEOPLE'S POWER, India's 100 crore vaccines' इस पुस्तक पर बैठक में अधिक जानकारी रखने का सौभाग्य मुझे मिला.
विश्व का सबसे Biggest (बड़ा), Fastest (गतिमान) और cheapest (सस्ता) वैक्सीनेशन मा. प्रधानमंत्री श्री @narendramodi जी नेतृत्व में और आरोग्य कर्मियों के कठोर परिश्रम से हुआ.
भारतीय जनता पार्टी
Devendra Fadnavis
@Dev_Fadnavis
सभी प्रदेश कार्यालयों से तथा देशभर से जुड़े सभी पदाधिकारी इनकी उपस्थिति में इस ऐतिहासिक उपलब्धि के लिए हमारे निर्णय कुशल मा. प्रधानमंत्री श्री @narendramodi जी का सभी प्रमुख नेताओं की उपस्थिति में हार्दिक अभिनंदन किया, उनका सत्कार किया.
Source - Twit

- **Login Page**

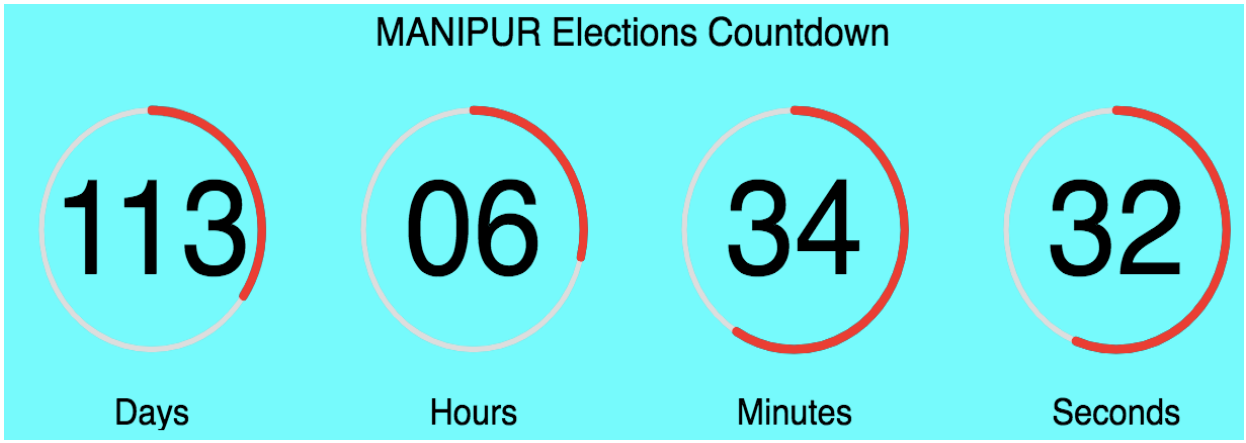

Login
Email
Password
Login
Don't have an account? Register Here.


Register
Username
Email
Password
Confirm Password
Register
Have an account? Login Here.

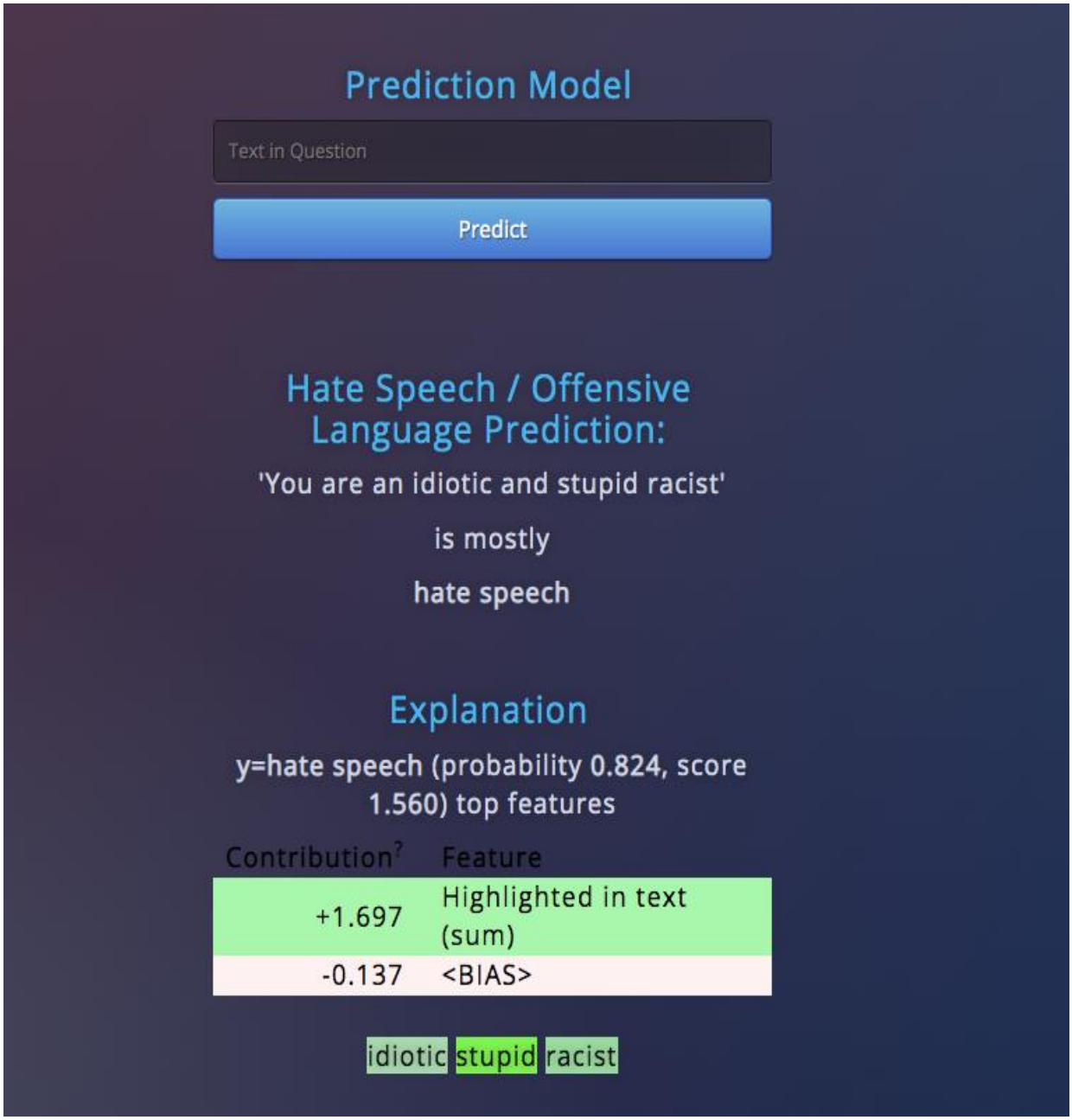
Welcome Karthik
Logout
Check if your opinion can be hurtful to others before posting

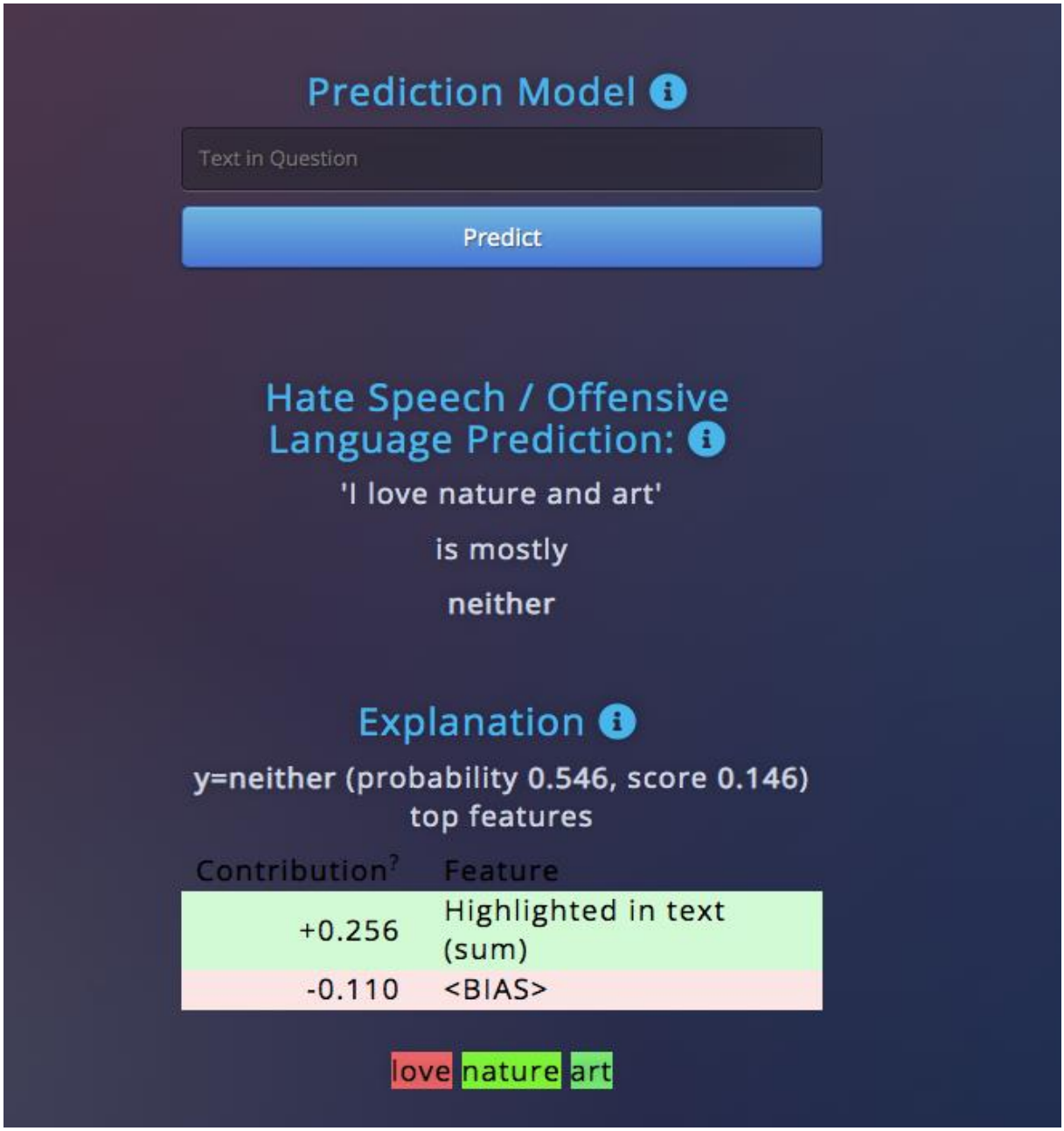
- **Upcoming Election Locations**

- **Countdown till election**



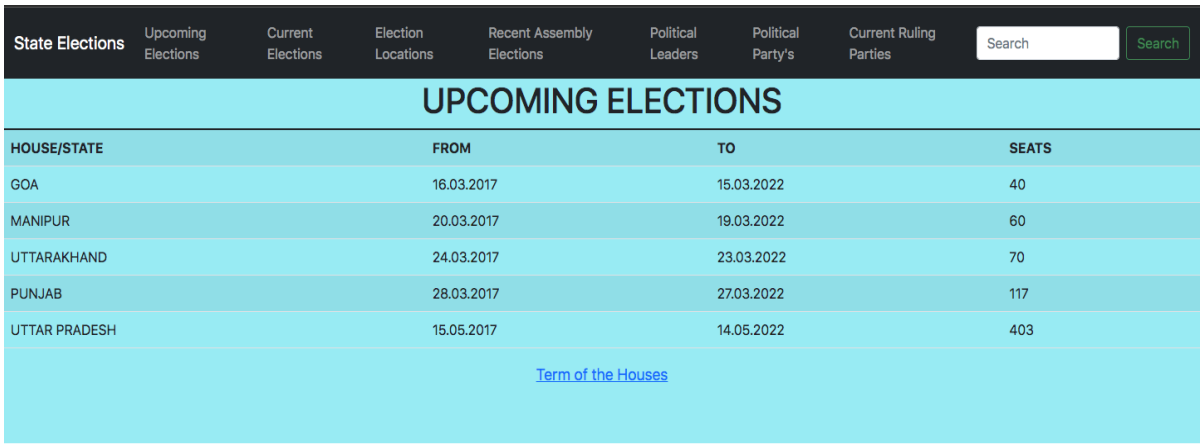
- **Hate Speech Classification**




Prediction Model
Text in Question
Predict
Hate Speech / Offensive Language Prediction:
'I love nature and art'
is mostly
neither
Explanation
y=neither (probability 0.546, score 0.146)
top features
Contribution?
Feature
+0.256
Highlighted in text (sum)
-0.110
<BIAS>
love nature art

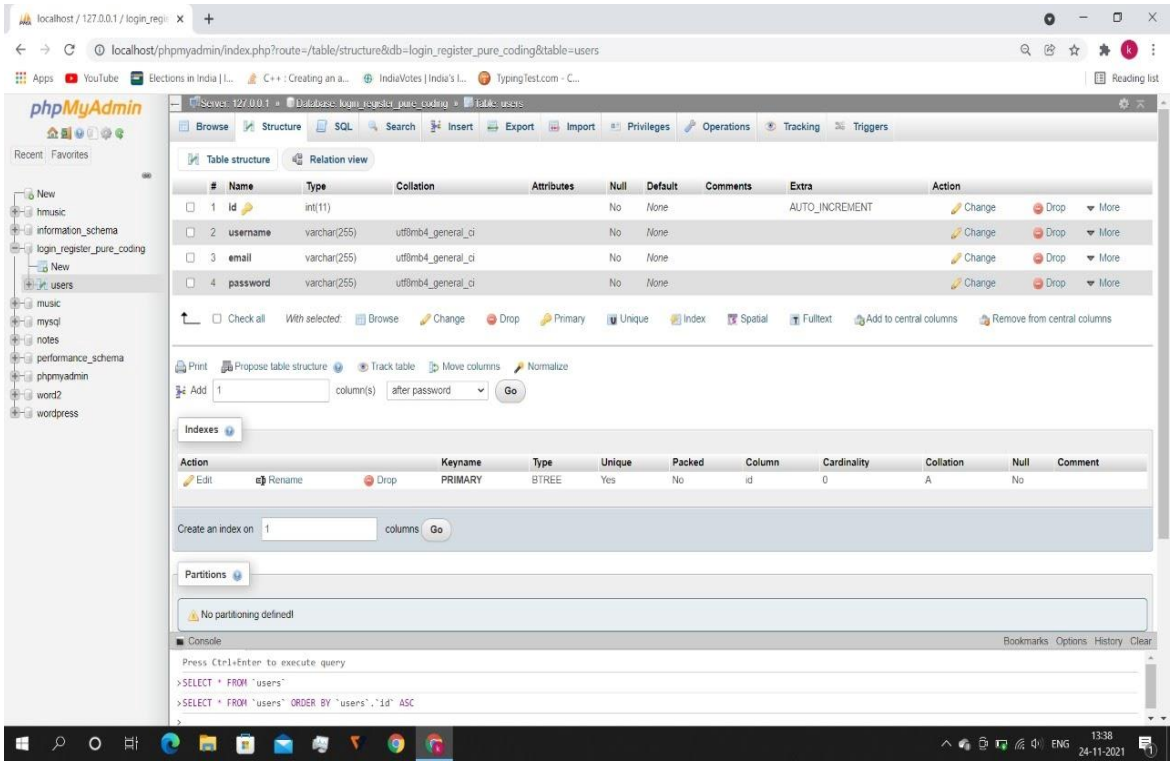
- **Chatbot**

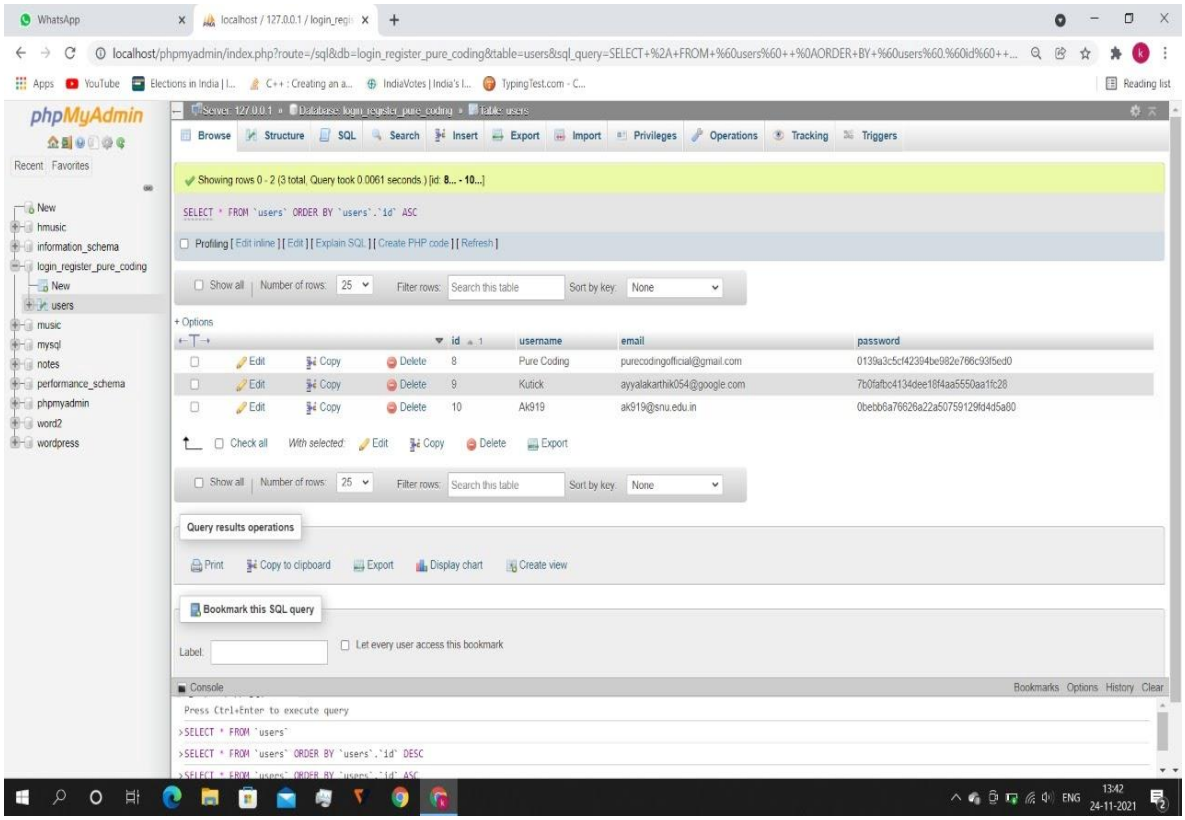
- **State Elections**



Recent Assembly Elections Results

- **Backend**


phpMyAdmin
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Table structure Relation view
Name Type Collation Attributes Null Default Comments Extra Action
1 id int(11) No None AUTO_INCREMENT Change Drop More
2 username varchar(255) utf8mb4_general_ci No None Change Drop More
3 email varchar(255) utf8mb4_general_ci No None Change Drop More
4 password varchar(255) utf8mb4_general_ci No None Change Drop More
Indexes
Partitions
No partitioning defined!
Console
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
>SELECT * FROM `users` ORDER BY `users`.`id` ASC


phpMyAdmin
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 2 (3 total, Query took 0.0061 seconds.) [id: 8... - 10...]
SELECT * FROM `users` ORDER BY `users`.`id` ASC
id username email password
8 Pure Coding purecodingofficial@gmail.com 0139a3c5cf42394be982e766c93f5ed0
9 Kutick ayyalakarthik054@google.com 7b0fafbc4134dee18f4aa5550aa1fc28
10 Ak919 ak919@snu.edu.in 0bebb6a76626a22a50759129fd4d5a80
Query results operations
Print Copy to clipboard Export Display chart Create view
Bookmark this SQL query
Console
Press Ctrl+Enter to execute query
>SELECT * FROM `users`
>SELECT * FROM `users` ORDER BY `users`.`id` DESC