For the People

By

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COMPLIANCE CERTIFICATE

This is to certify that the research work embodied in this Project entitled **"For the People"** was carried out at Birla Vishvakarma Mahavidyalaya (Engineering College) An Autonomous Institution for partial fulfillment of Bachelor of Technology with Specialization in ***Electronics and Communication Engineering*** degree to be awarded by Gujarat Technological University. He/She has complied with the comments given by the Mid Semester Project Reviewer.

Date : 4 July, 2020

Place :

Name of the Student:
ID No. of the Student:
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I hereby certify that I am the sole author of this Project and that neither any part of this Project nor the whole of the Project has been submitted for a degree to any other University or Institution.

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I declare that this is a true copy of Project, including any final revisions, as approved by my Project review committee.

Date:

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Project Report:

For **t**he **P**eople

PROBLEM SUMMARY(ABSTRACT)

People's feedback is an important aspect of democracy and this often gets overlooked in India. In this project, we aim to get feedback of willing people by making certain online platforms that are open to all. We plan to closely analyze these inputs from the people and extract important parameters, like the problem, location, which department/ministry it is falling under, frequency of submission. This data would be then submitted to the authority of city/state and hence they can be notified about the persisting issues under their locality. Hence by getting such feedbacks, analyzing them closely and solving problems, we aim to help people resolve their problems and work as a stepping stone towards perfect democracy.

The services which are provided by the government with an assurance "For the People" are built and never looked upon unless there is wreckage in their daily functioning. Since we live in a democracy, it becomes our right to enjoy every service in its best possible way. Hence, we aim to solve this problem by creating online platforms immersed with data analytics.

I. INTRODUCTION

- The central intuition behind the working of this system is to let people enjoy real democracy. We observed that a lot of recent movements and bills targeted the citizen's privacy or were against the will of citizens.
- And lots of influential voices and opinions were left unheard. And this continues and keeps getting deep-rooted with every passing day.
- Other than that, the genal grievances of the people remain unheard by the intuitions that were established to solved them
-
- The major reason behind all the above being lack of a system that can meaning fully collect, organise and represent to the above-mentioned authorities

II.Machine Learning tools

spaCy: It is a NLP framework designed upon industry standards to make using NLP easier and more efficient .It also provides many pretrained models to help with the Natural Language processing. spaCy is used my almost all the tech giants like Microsoft , Amazon and Google.

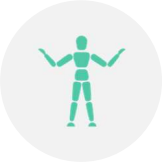
en_core_web_sm: It is a English multi-task CNN trained on OntoNotes. Assigns context-specific token vectors, POS tags, dependency parse and named entities.

NLTK: or Natural language tool kit is a leading platform for building Python programs to work with human language data. It is easy to use and has a corpora of 50 and lexical resources such as WordNet, along with a suite of text processing libraries for classification, tokenization, stemming, tagging, parsing, and semantic reasoning, wrappers for industrial-strength NLP libraries

III.SCOPE/APPLICATION

Public Grievance reporting system

Anonymous crime reporting Fasttrack



Quantitively analysis of Individual govt. bodies

Macro Analysis of individual Grievances report to help better allocate budget of Country

Expansion on the E-Governance

Outbreak Prediction

IV.COMPONENTS

IV.1 Python

Fig 1. Python

Python is used successfully in thousands of real-world business applications around the world, including many large and mission critical systems. Python is an interpreter based high level programming language Created by Guido van Rossum and first released in 1991, Python has recently gained popularity to become the most widely used language in the world. And it as one of the best community support which is a contributing factor to this meteoric rise.

IV.2 spaCy

Fig 2. Spacy

spaCy is a NLP framework designed upon industry standards to make using NLP easier and more efficient .It also provides many pretrained models to help with the Natural Language processing. spaCy is used my almost all the tech giants like Microsoft , Amazon and Google.

IV.3 Flask

Fig 3. Flask

Flask is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions. However, Flask supports extensions that can add application features as if they were implemented in Flask itself. Extensions exist for object-relational mappers, form validation, upload handling, various open authentication technologies and several common framework related tools. Extensions

are updated far more frequently than the core Flask program. Applications that use the Flask framework include Pinterest and LinkedIn.

IV.4 Selenium

Fig 4. Selenium

Selenium is a framework for testing applications and scraping the web using scripting languages like python, ruby, Perl and groovy. It runs on windows , Linux and mac os and is distributed under an open source software license

IV.5 Flutter

Fig 5. Flutter

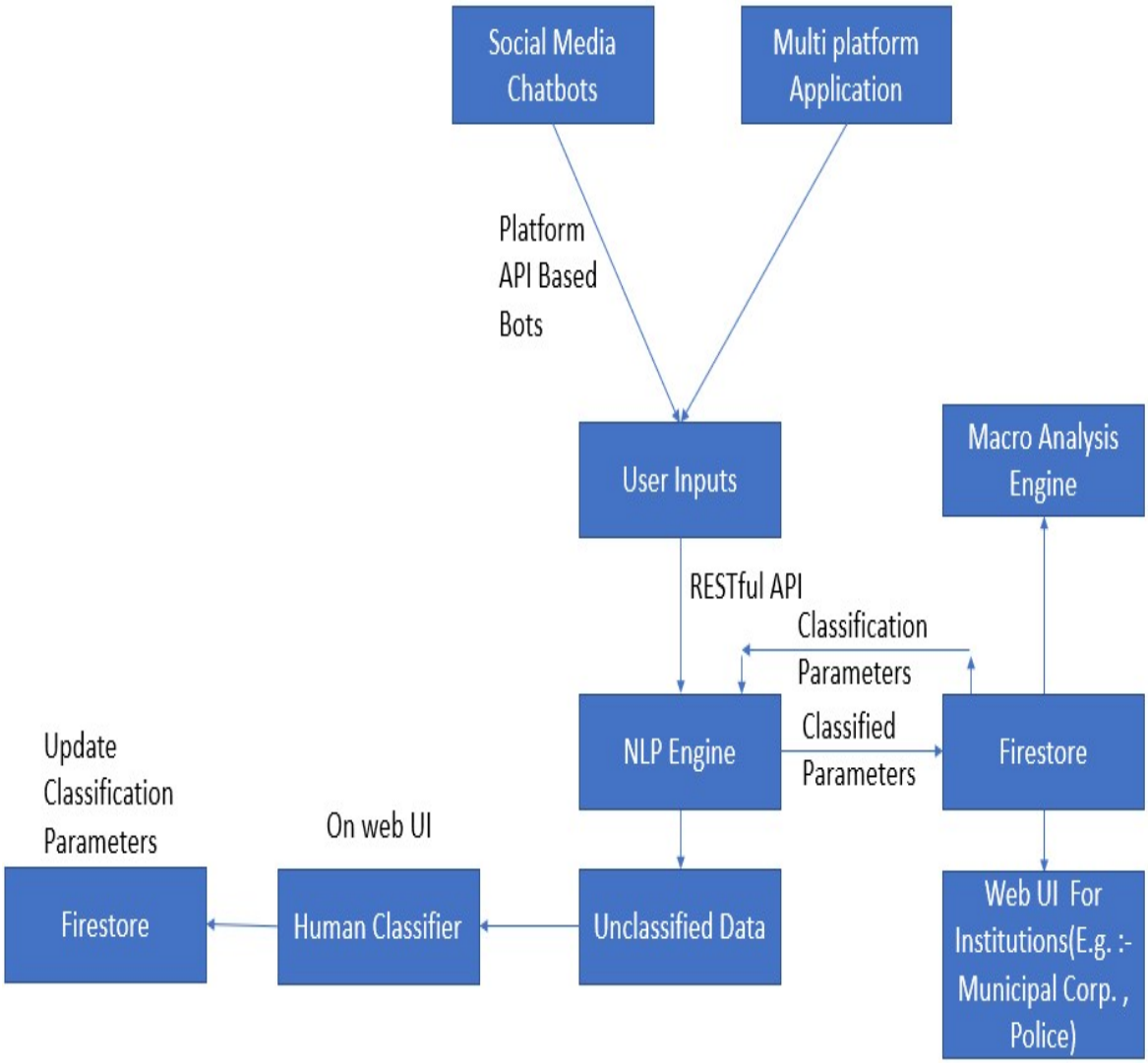
Flutter is Google's UI toolkit for building beautiful, natively compiled applications for mobile, web, and desktop from a single codebase.

IV.6 Firebase

Fig 6. Firebase

Firebase is a mobile and web application development platform developed by Firebase, Inc. in 2011, then acquired by Google in 2014. Firebase is an example of backend as a service and provides the fastest NO-SQL Database in the world.

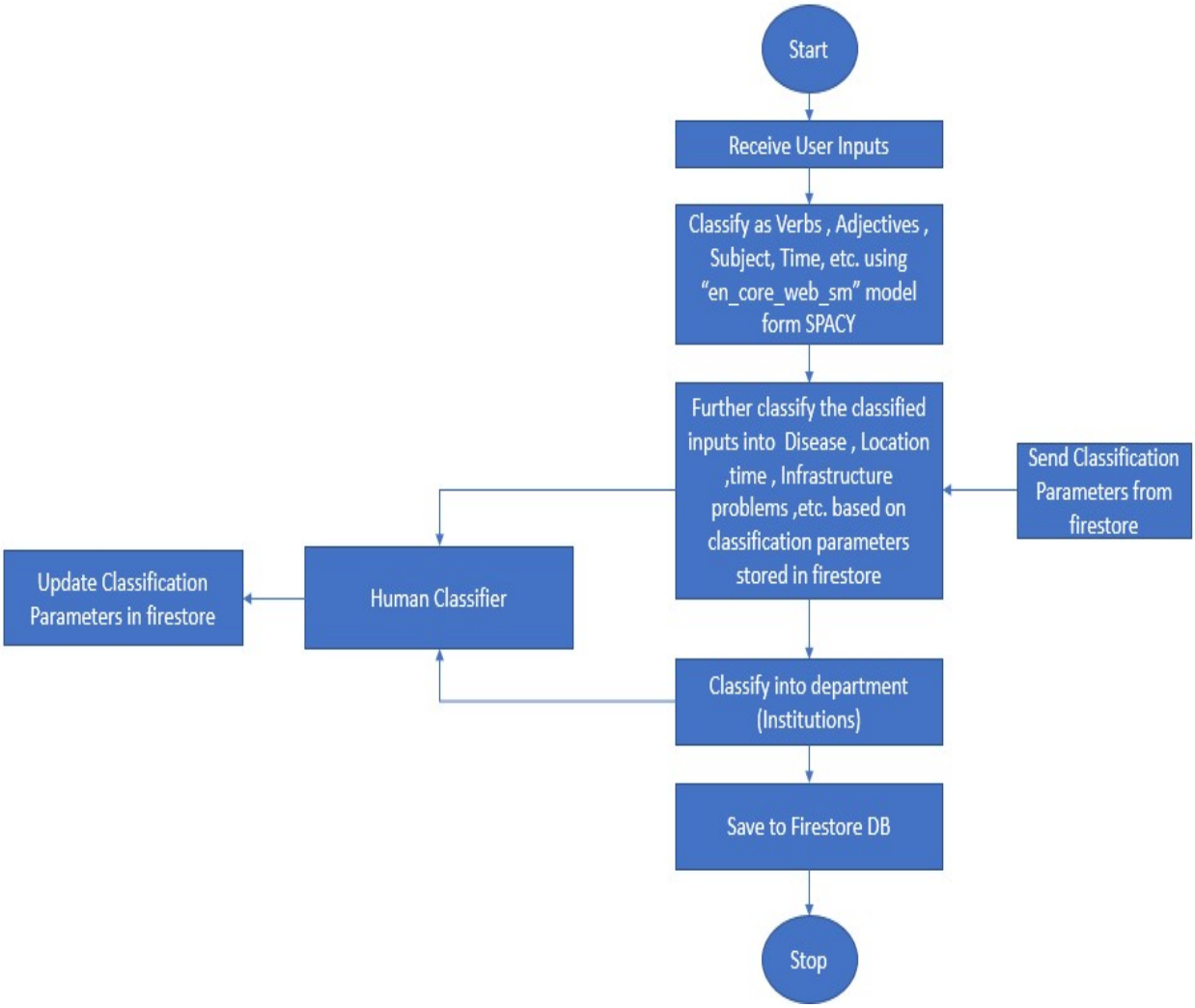
V.BLOCK DIAGRAM



Overall Block Diagram of system

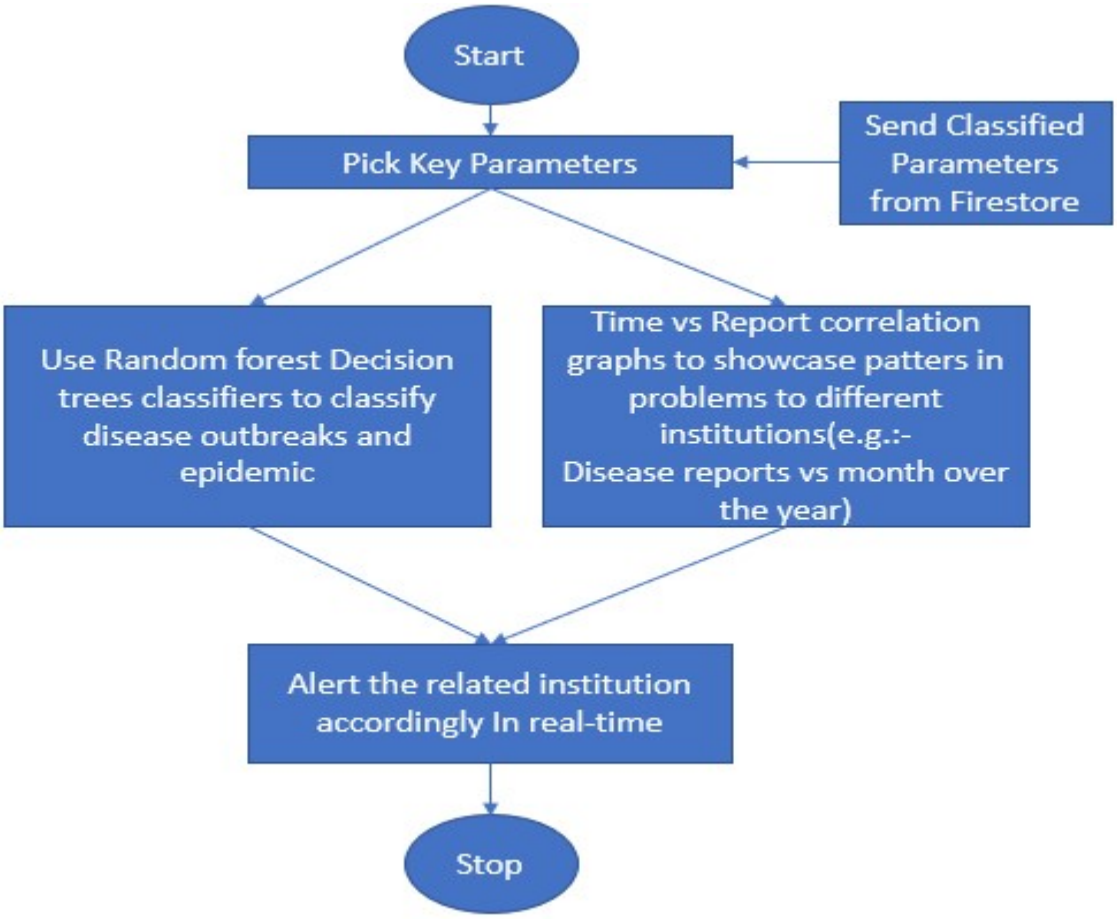
VI.FLOW CHART

VI.1: Flowchart part 1:



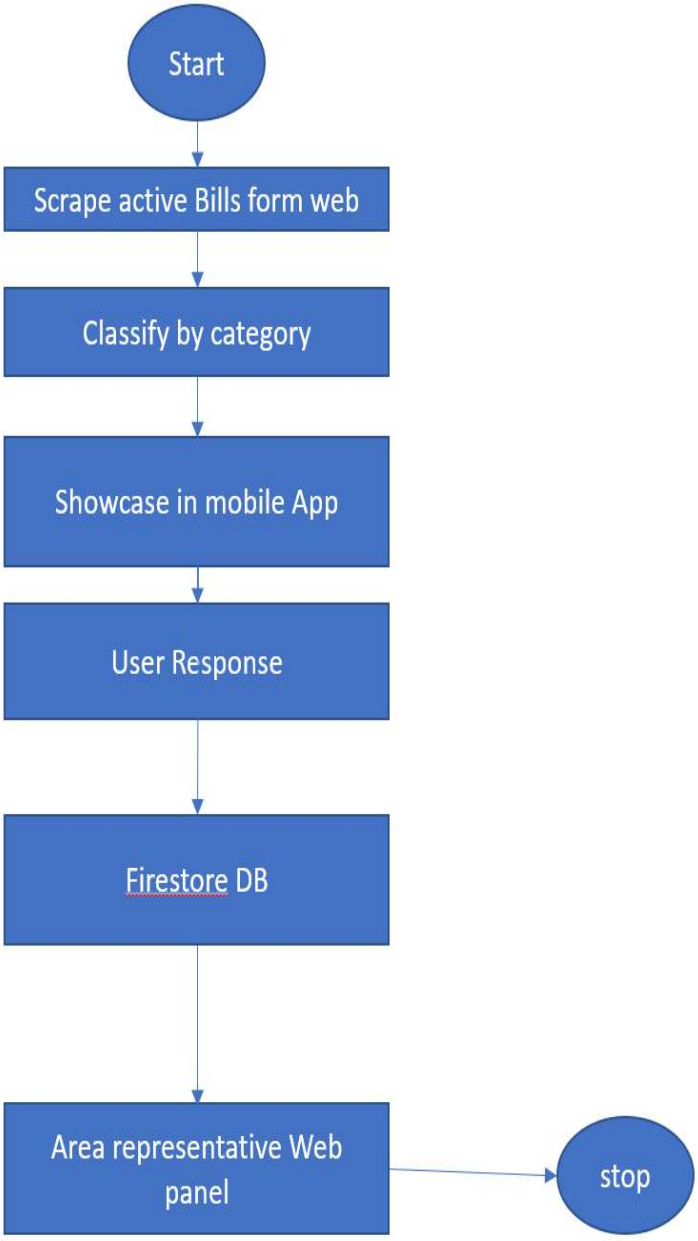
NLP Engine Flowchart

VI.2: Flowchart part 2:



Macro Analysis Engine Flowchart

VI.3: Flowchart part 3:



E-Governance Flowchart

VII.Work Done

WORK	STATUS
NLP engine	✔
NLP Feedback System	✔
Web Panels	✔
Mobile Applications	✔
Social Media bots	✔
Macro Analysis Engine	✔
E-Governance	✔

VIII. Results

A. Android application

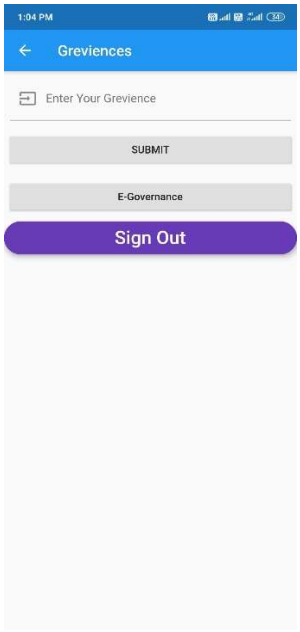


Fig 7. Main page

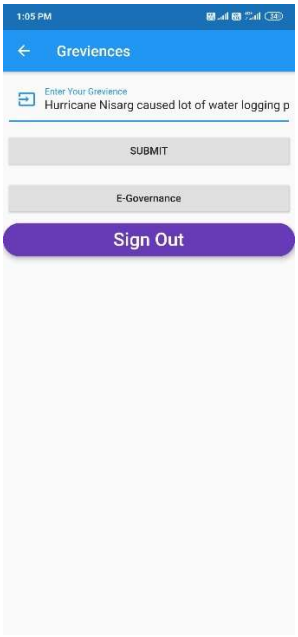


Fig 8. Grievance reporting

Fig 9. Bills to view and vote

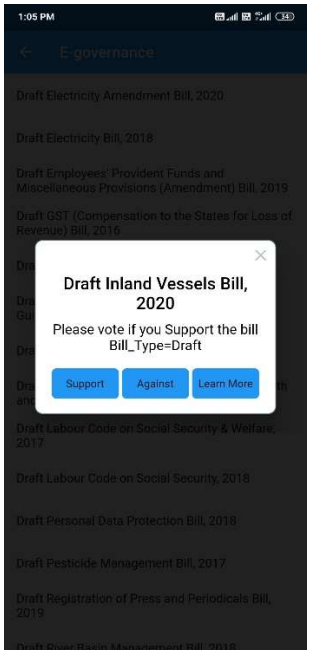


Fig 10. Voting: support or against

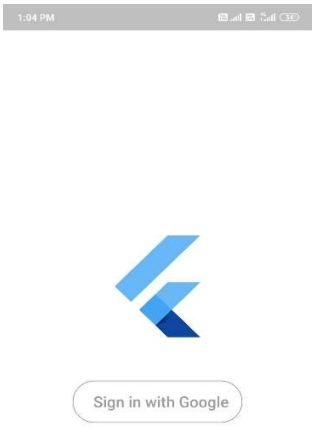


Fig 11. Sign in page

B. Website webpages

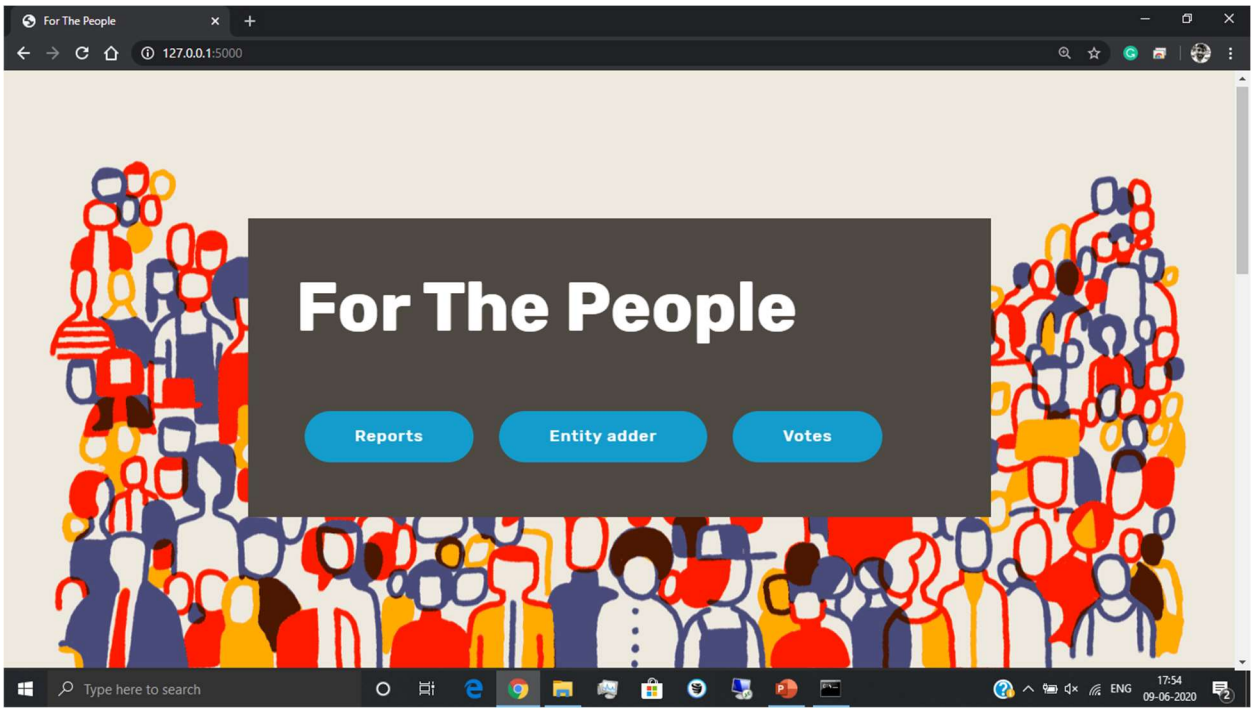


Fig 12. Home Page

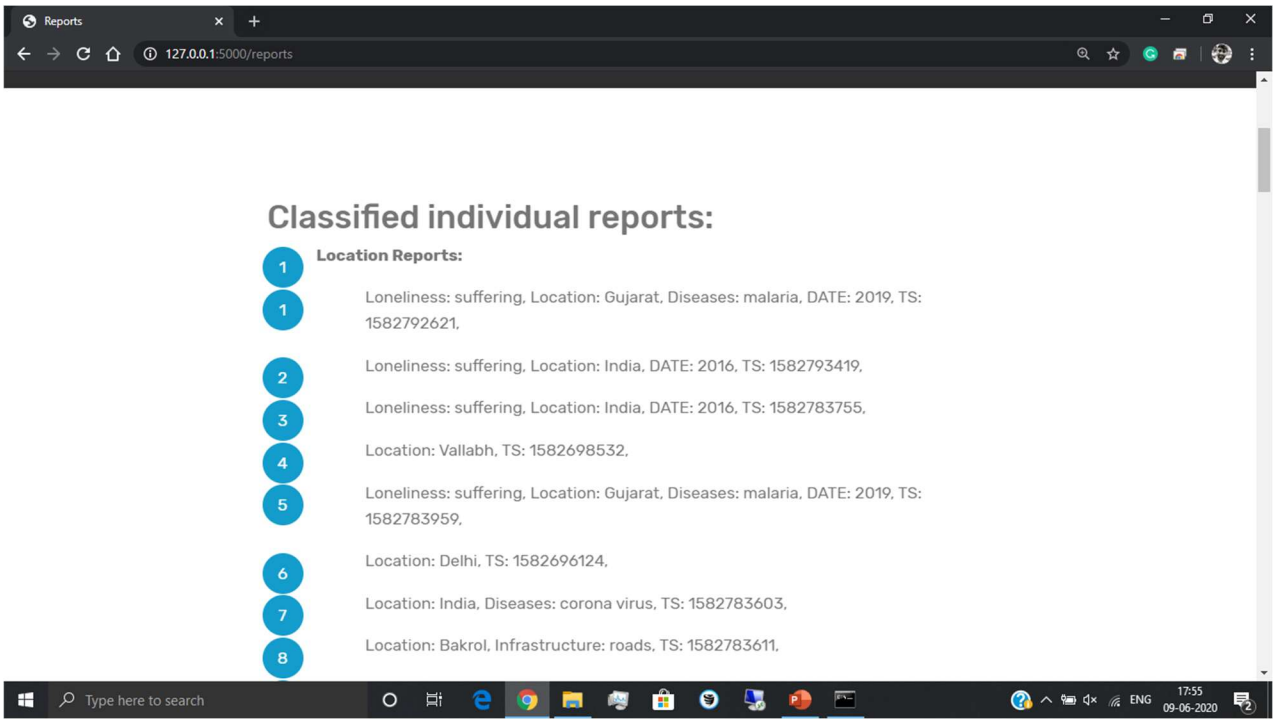


Fig 13. Classified reports page

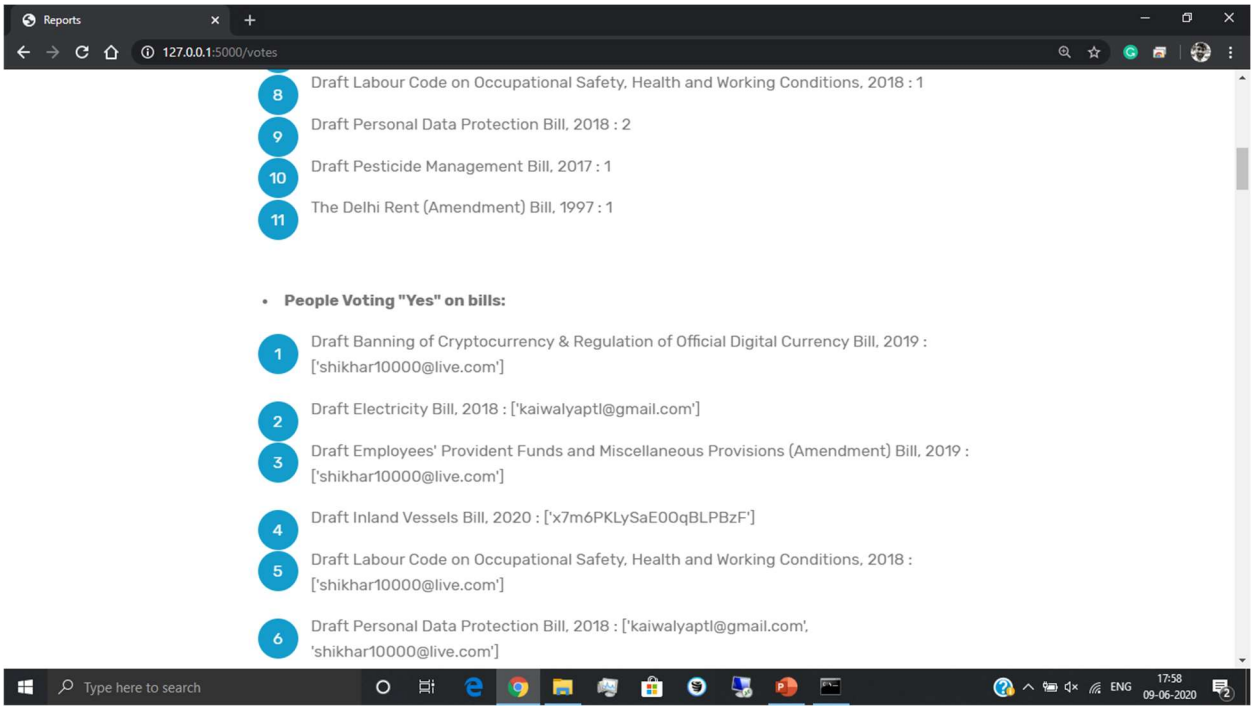


Fig 14. Votes analysis page

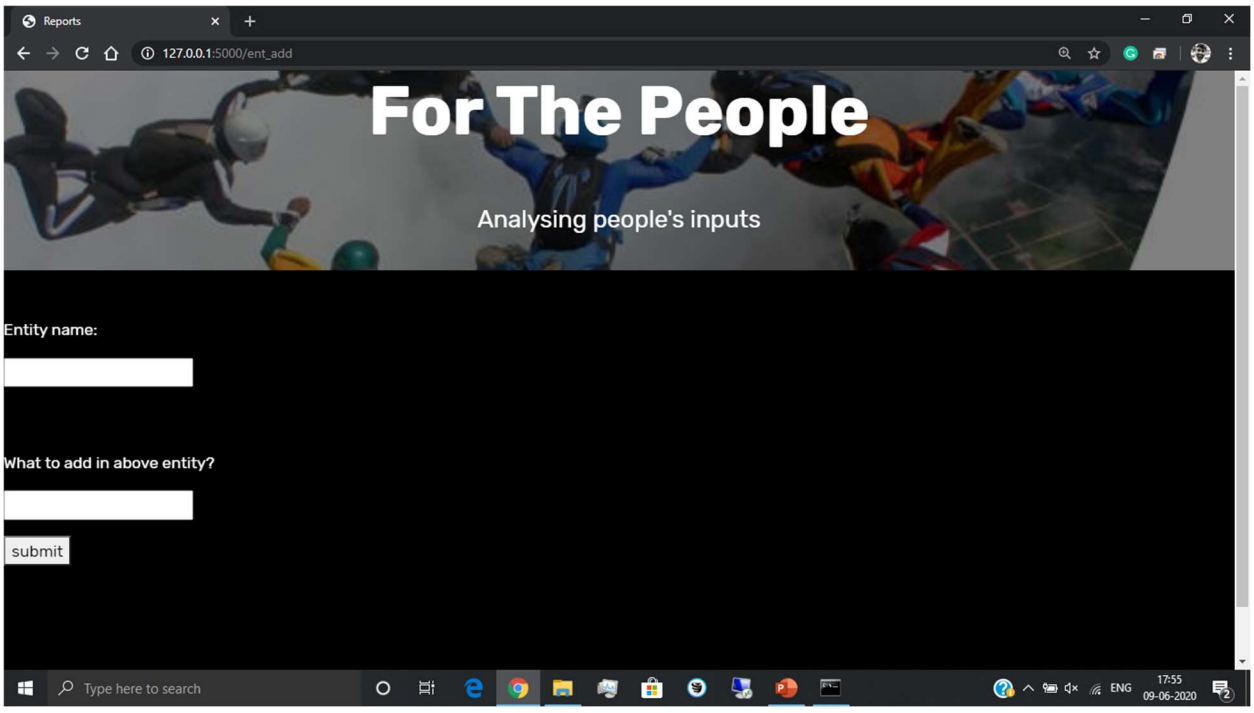


Fig 15. Entity adder page

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