EXTERNAL PROJECT VIVA 2021-2022

FAKE NEWS DETECTION SYSTEM

Parul Institute of Computer Applications

Semester 2 Project -1

2021-22

Team members

1. 210510124036 - Akshat Mistry - I

2. 210510126036 – Akshita Sharma - I

3. 210510126018 – Aditya Kumar Pan - I

INDEX

Abstract

- Internet is one of the important inventions and a large number of persons are its users. These persons use this for different purposes. There are different social media platforms that are accessible to these users. Any user can make a post or spread the news through these online platforms. These platforms do not verify the users or their posts. So some of the users try to spread fake news through these platforms. Fake news can significantly misinform people who often rely on online sources and social media for their information. A human being is unable to detect all these fake news. So there is a need for machine learning classifiers that can detect these fake news automatically. Machine learning is the part of artificial intelligence that helps in making the systems that can learn and perform different actions. Most of the time machine learning algorithms are used for prediction purpose or to detect something that is hidden

Tools and Technology Used

- Platform- Python
- Python nymPy
- Python Pandas
- SkLearn
- Machine Learning Classifiers
- Artificial Intelligence(AI)
- Flask Method

Features of Proposed System

- Accuracy up to 99%
- Search bar feature for easier search
- Login feature
- User friendly

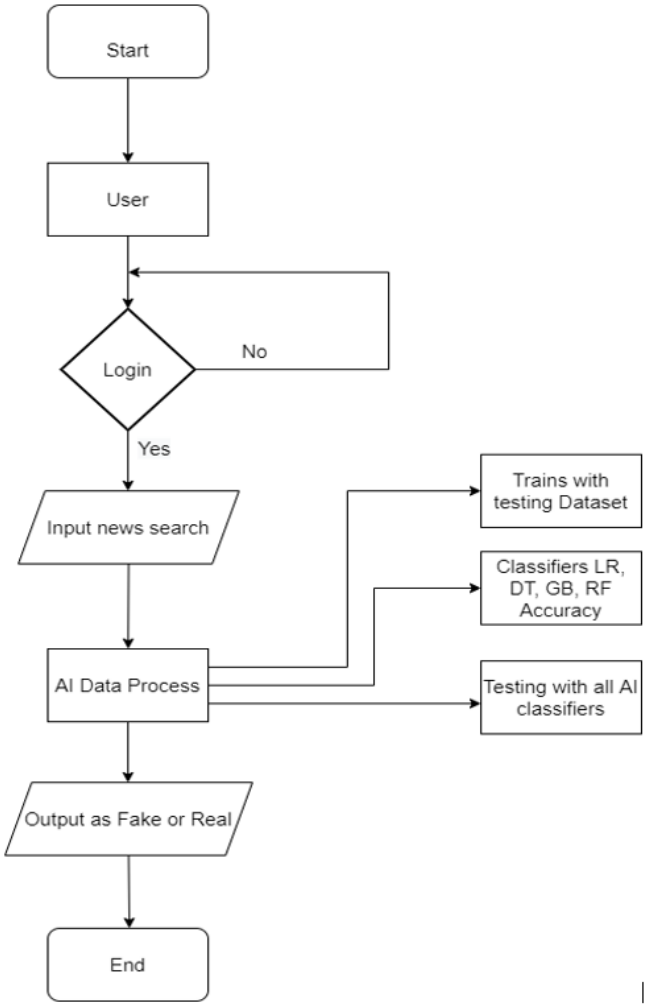
Limitation of Proposed System

- Accuracy may not be as expected.
- Machine Learning Classifiers may be unable to detect or recognize entered news.
- Database may not have the records for certain News.

Users and their role description

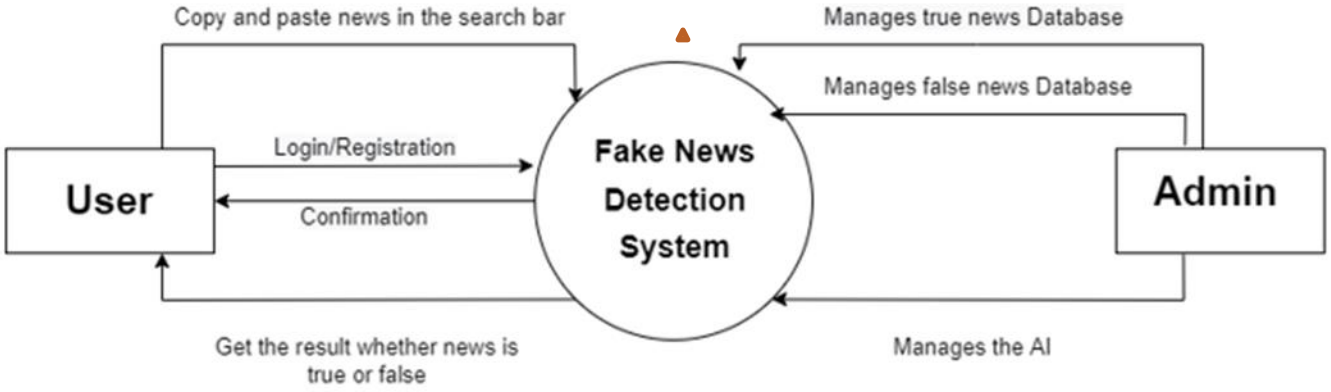
- People who completely depend on social media and internet for gathering news and information are often misguided and misinformed by people who spread fake news.
- A human being is unable to detect that the news in their feed is true or not.
- As a user of our software they have to search for our website on any web browser and after opening the link they have to type the heading of the news or keywords of the news which they want to find out whether true or not that they came across on any social media platform.
- Once the software checks the entered data with the database and machine learning classifiers detects if the entered news is real or fake according to its detection the user will get the result as fake or real.

System Flow Diagram

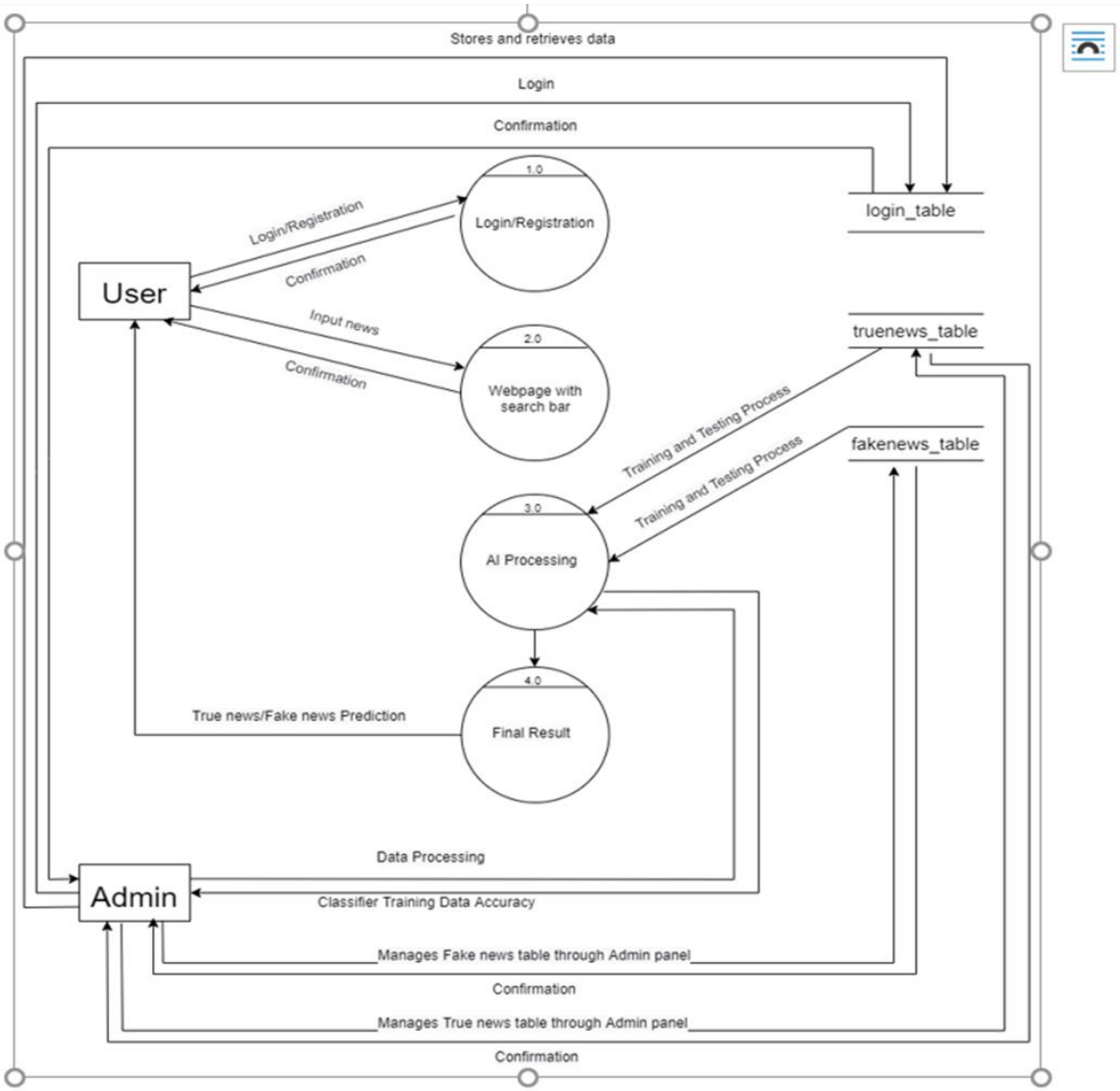


Data Flow Diagram (All levels of DFDs)

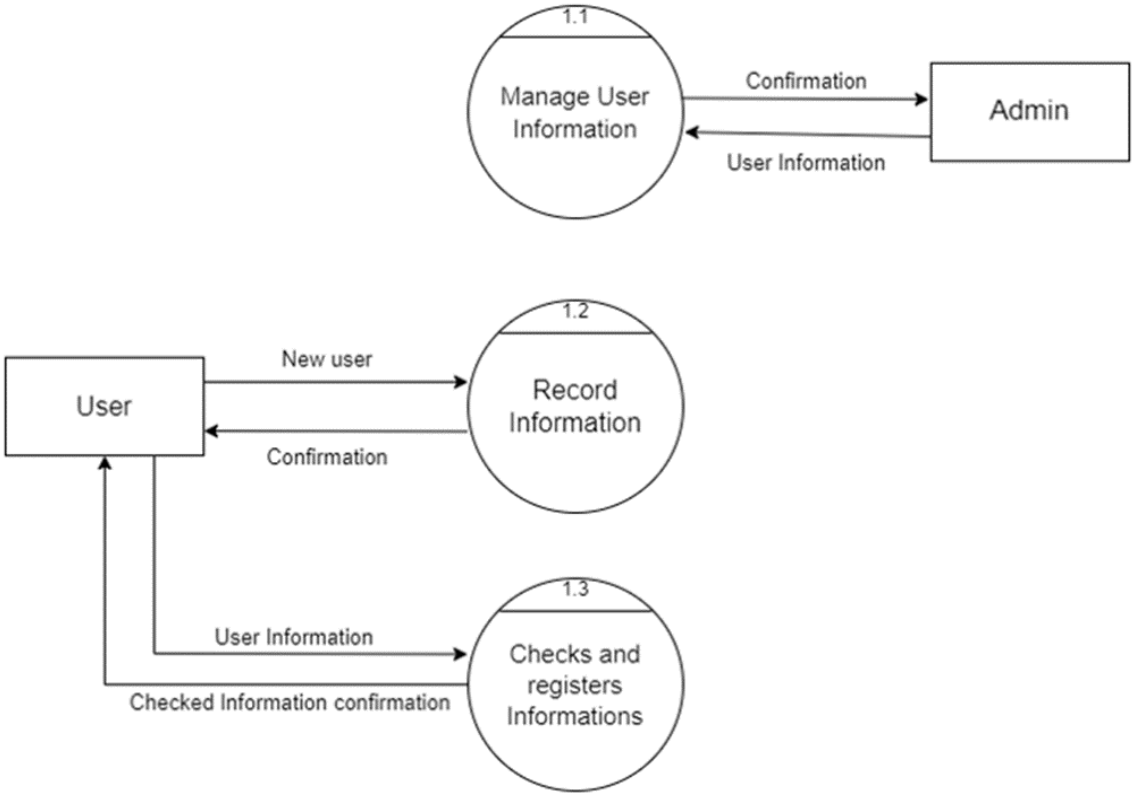
LEVEL 0 DFD



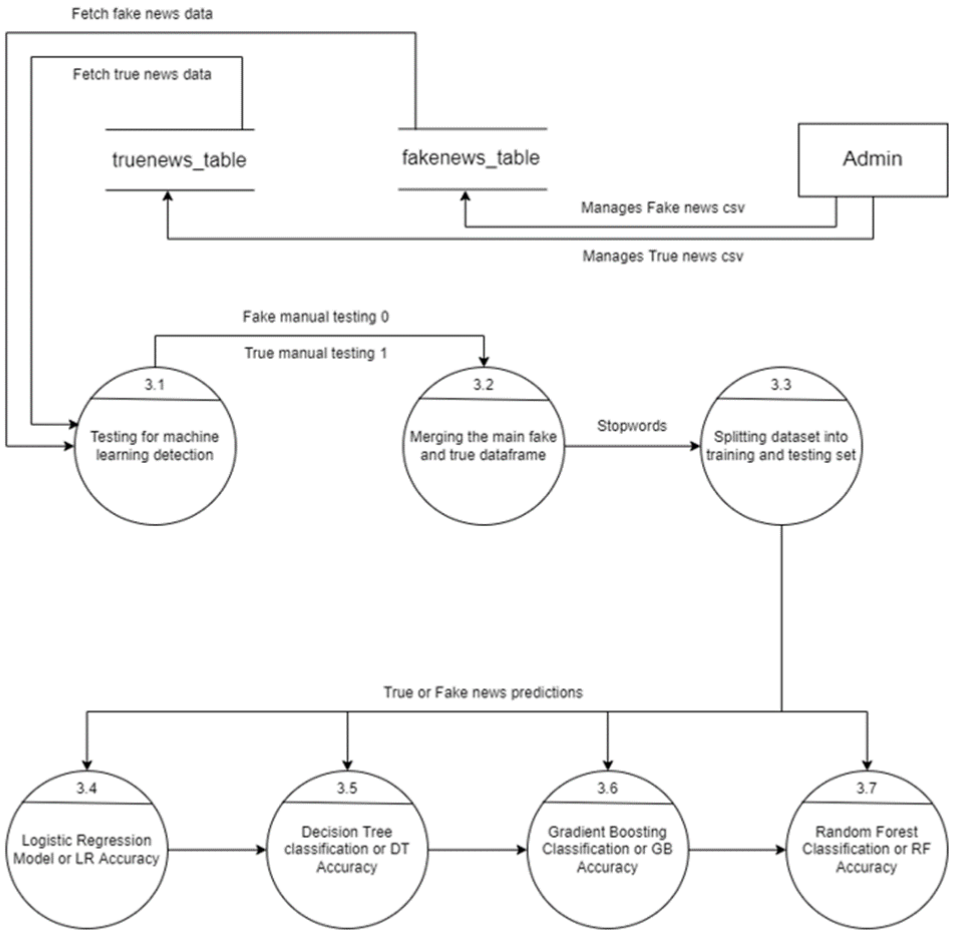
LEVEL 1 DFD


Stores and retrieves data
Login
Confirmation
1.0
Login/Registration
login_table
Login/Registration
Confirmation
User
Input news
Confirmation
2.0
Webpage with search bar
truenews_table
fakenews_table
Training and Testing Process
Training and Testing Process
3.0
AI Processing
4.0
Final Result
True news/Fake news Prediction
Data Processing
Admin
Classifier Training Data Accuracy
Manages Fake news table through Admin panel
Confirmation
Manages True news table through Admin panel
Confirmation

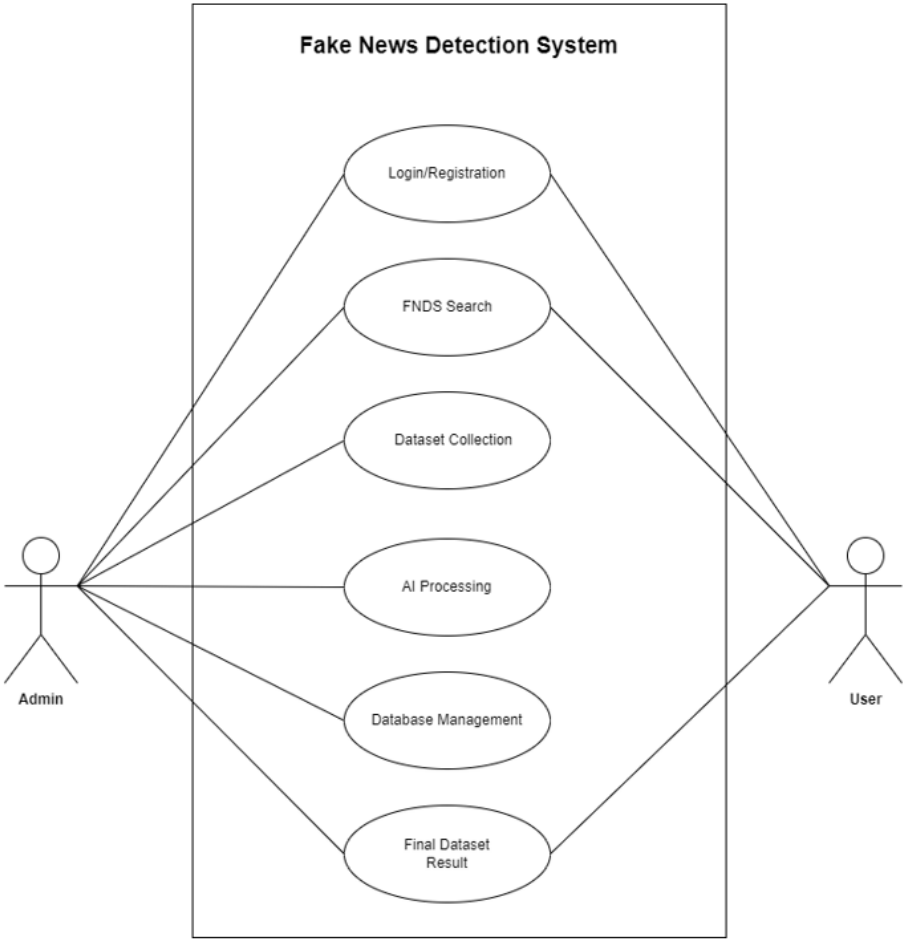
LEVEL 2 DFD


1.1
Manage User Information
Confirmation
User Information
Admin
1.2
Record Information
New user
Confirmation
User
1.3
Checks and registers Informations
User Information
Checked Information confirmation

LEVEL 2 DFD


Fetch fake news data
Fetch true news data
truenews_table
fakenews_table
Admin
Manages Fake news csv
Manages True news csv
Fake manual testing 0
True manual testing 1
3.1
Testing for machine learning detection
3.2
Merging the main fake and true dataframe
Stopwords
3.3
Splitting dataset into training and testing set
True or Fake news predictions
3.4
Logistic Regression Model or LR Accuracy
3.5
Decision Tree classification or DT Accuracy
3.6
Gradient Boosting Classification or GB Accuracy
3.7
Random Forest Classification or RF Accuracy

Use Case Diagram



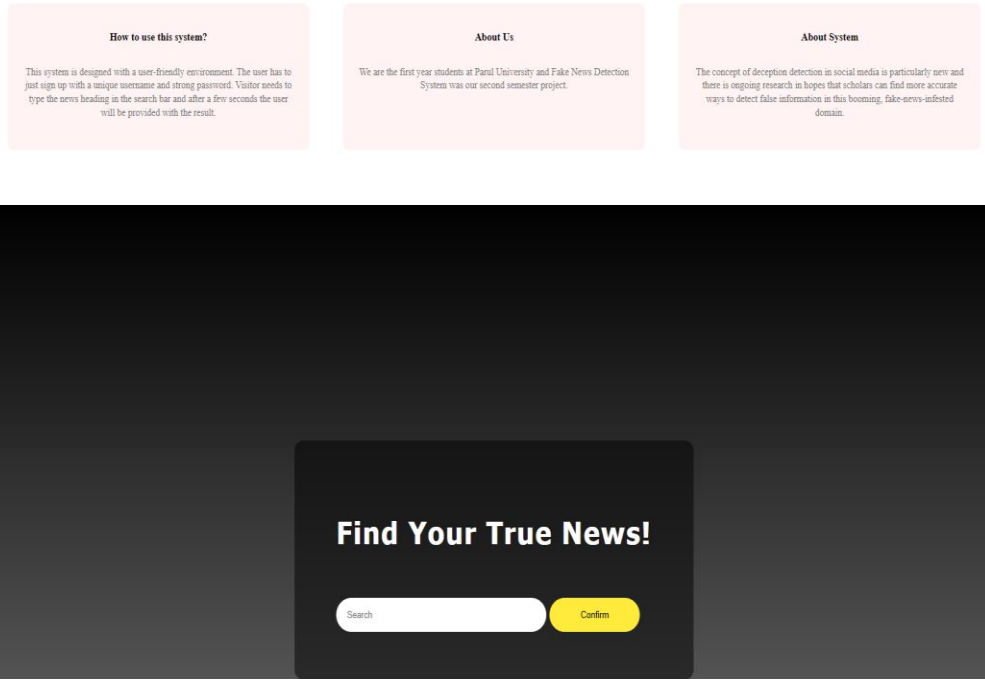
Data Dictionary

- Login_Table:

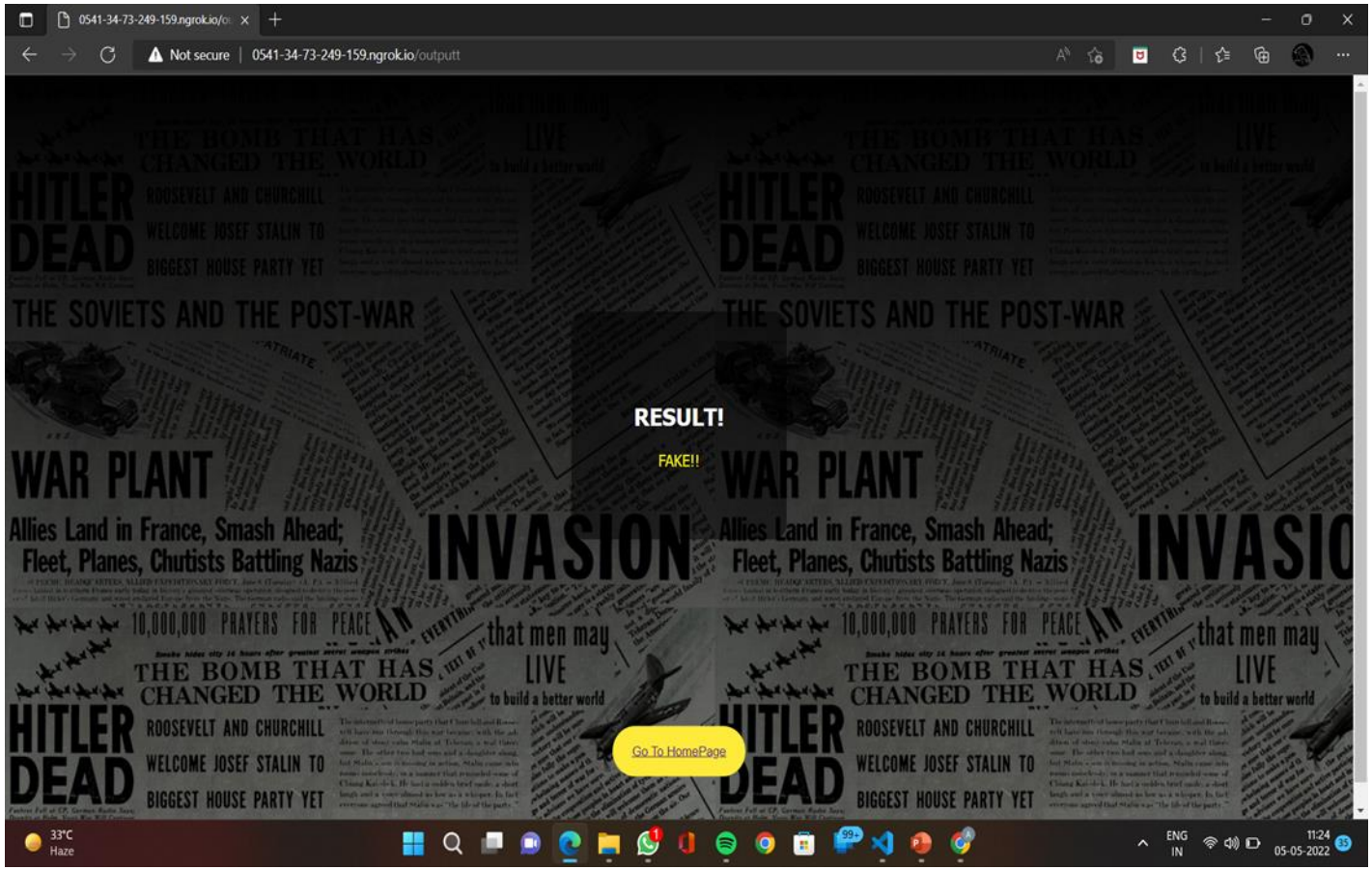
SR NO.	FIELD NAME	DATA TYPE	SIZE	CONST RAINT	DESCRIPT ION	EX
2	password	varchar	(8)	NOT NULL	Password of the user	akshita123
3	email	varchar	(20)	NOT NULL UNIQUE	Email of the user	akshita@gmail.com

Screenshots of Development Phase 1 (Designing of the Project)

- FNDS Home Page Design:



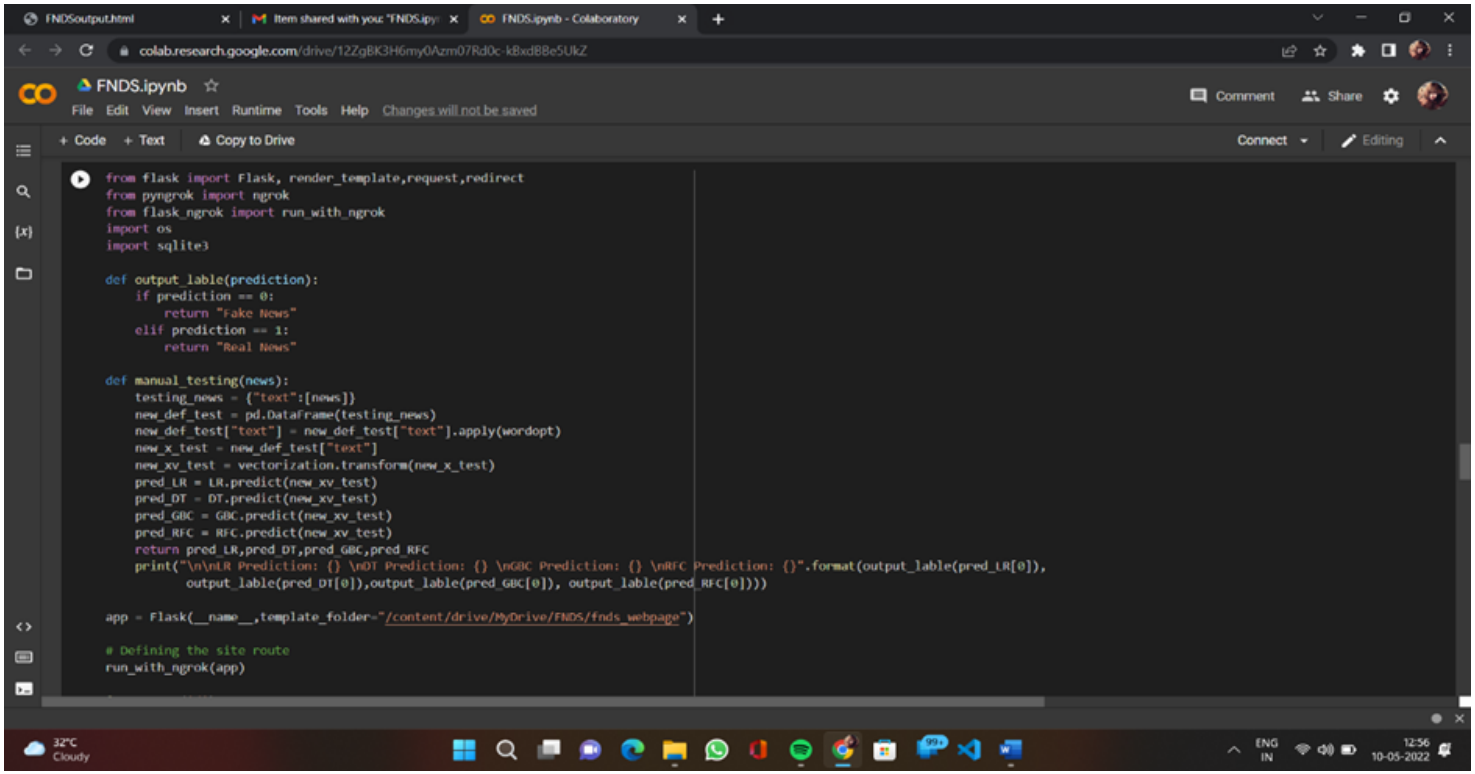
- FNDS output Page Design:



Screenshots of Development Phase 2 (Features Implementation)

- Code of FNDS:

- Code of FNDS Database:



Thank you !!!