International Research Journal in Global Engineering and Sciences. (IRJGES)
ISSN : 2456-172X | Vol. 6, No. 1, March, 2021 – May,2021 | Pages 38-45

ANALYSIS OF WOMEN'S SAFETY IN INDIAN CITIES

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Abstract
Women and girls often face violence and harassment in public places across various cities, leading to physical abuse or harassment. This research paper focuses on the role of social media in promoting women's safety in Indian cities, specifically examining platforms like Twitter, Facebook, and Instagram. It explores how social media can foster a sense of responsibility among Indian society to prioritize women's safety. Tweets on Twitter, containing images, text, and written messages advocating for women's safety, can influence Indian youth culture and educate people to take strict action against harassers. Hashtag messages on Twitter provide a global platform for women to express their feelings about their safety while commuting or working, shedding light on their experiences and helping raise awareness.
Keywords: Twitter, Instagram, women, tweets, Facebook

1. INTRODUCTION

Twitter has emerged as a significant social networking platform in modern times, with over a hundred million users generating trillions of messages, known as "Tweets," each day. With such a vast audience, Twitter allows users to share their opinions and viewpoints on various current issues, making it an informative resource for institutions, businesses, and organizations. In urban areas, behaviors like catcalling and passing comments are forms of violence and harassment that women often encounter, contributing to feelings of insecurity, especially in cities like Delhi, Pune, Chennai, and Mumbai. Social media platforms provide a space for individuals to freely express their thoughts on politics and other topics, allowing women to share their experiences of violence or harassment, thereby uniting like-minded individuals to address such incidents.

Analysis of tweet texts obtained from Twitter reveals instances of individuals harassing women, as well as names of women or allies who have stood against such behavior, highlighting the challenges women face in public spaces.

1. ANALYSIS OF WOMEN'S SAFETY IN INDIAN CITIES

1.1 EXISTING SYSTEM

Social media platforms serve as avenues for individuals to freely express their opinions on Indian society and politicians' claims regarding the safety of Indian cities for women. Women often share their experiences of abuse and harassment on these platforms, inspiring others to speak out against such incidents. This exchange of tweets and stories motivates others to stand up against those who make Indian cities unsafe for women. The increasing popularity of social

media platforms like Facebook has led to the extraction, analysis, and interpretation of data available on these platforms. Behavioral analysis based on social networks can enhance the accuracy of Twitter analysis and predictions.

1.2 PROPOSED SYSTEM

Women have the right to access the city freely, including educational institutions and workplaces. However, many women feel unsafe in places like shopping malls and on their way to work due to unwanted attention, body shaming, and harassment. The lack of safety measures and concrete consequences contributes to the harassment faced by girls, often by neighbors or unknown individuals. Ensuring women's safety in cities involves recognizing their rights to move around without fear of violence or harassment, rather than imposing restrictions on them.

1.3 ADVANTAGES

- The analysis of Twitter texts includes the names of individuals, including women, who have stood up against abuse and harassment in Indian cities, highlighting the challenges they face.
- The dataset obtained from Twitter provides insights into the status of women's safety in Indian society.

1.4 DISADVANTAGES

- Twitter and Instagram are primarily used for expressing emotions and opinions about Indian cities and society, which may not always reflect accurate data on women's safety.
- Various sentiment analysis methods, including machine learning and lexicon-based approaches, may lead to different categorizations.
- Different approaches, such as statistical, knowledge-based, and age-wise differentiation, may present challenges in accurately assessing women's safety.

2.1 SOFTWARE REQUIREMENTS

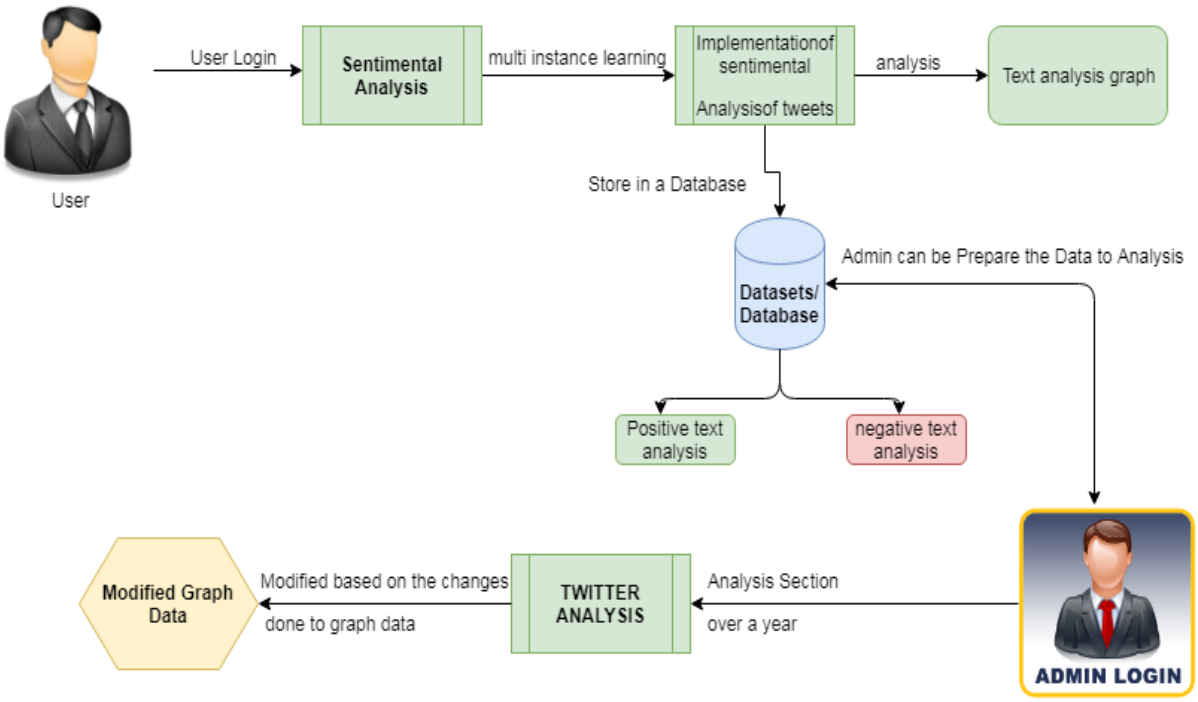
- Operating System: Windows 8 (any version)
- Programming Language: Python
- Frontend Languages: HTML, CSS, JavaScript
- Database: MySQL software (any recent version)
- Backend Tool: Wamp Server (any recent version)
- Web Framework: Django-2.0.5

2.2 HARDWARE REQUIREMENTS

- Processor: P4 or above
- RAM: 1 GB or above

3. SYSTEM DESIGN

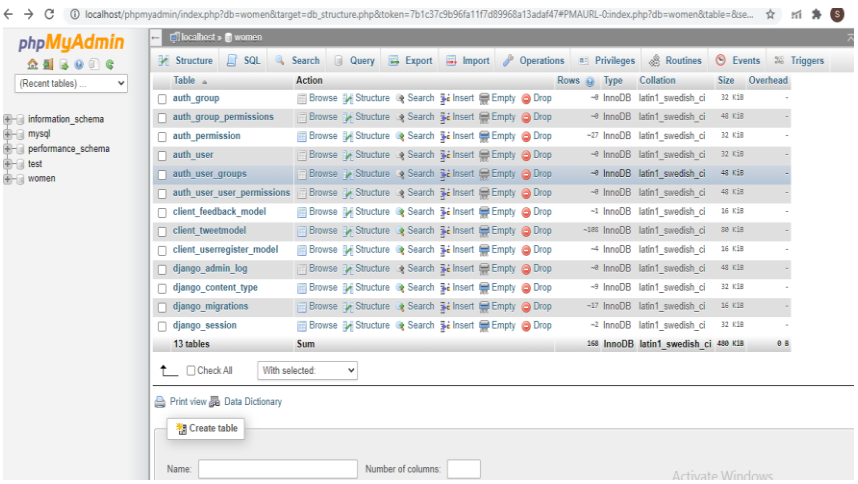
ARCHITECTURAL DIAGRAM



5. RESULTS & DISCUSSION

In this project, a system has been developed to provide analysis to users regarding women's safety and security in Indian cities. When executing this program, users will receive various outputs at different times, which will be helpful for women in dangerous situations. If the user executes the program multiple times, the results should be consistent. If the neutral messages on Twitter are significantly high, it indicates that people have less interest in the topic and are not willing to take a stance. The final results are based on the data collected from Twitter, which can influence individuals as the human mind tends to adapt to situations. Therefore, this system can provide the best analysis and updates based on the data.

Database Server After Updating the Data:



SNAPSHOTS

Fig 1 (Login Page for User)

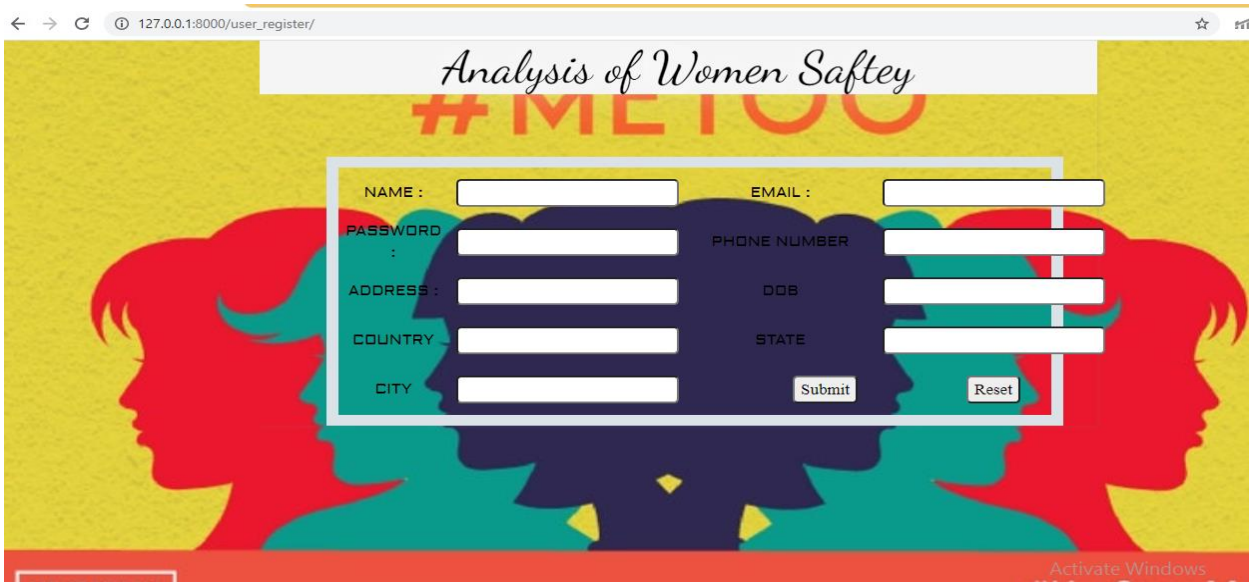


Fig 2 (User register page for Women Safety)

Fig 3 (User details displayed on webpage)

Fig 4 (User can Update details)

Fig 5 (Login page of Admin)

NAME	EMAIL	PHONE NUMBER	ADDRESS	DOB	COUNTRY	STATE	CITY
fathima	fathima@gmail.com	9878665677	chennai	1995-09-17	India	Tamil Nadu	Chennai
noorul	noorul@gmail.com	8765884898	chennai	1998-09-08	India	Tamil Nadu	Chennai
sarala	vsarala446@gmail.com	7981520012	2-105, Teachers colony, jaggampeta., East Godavari, Andhra Pradesh.	06-07-1999	India	Andhra Pradesh	East Godavari
abhinay	abhinay0703@gmail.com	07981520012	2-105	06-07-1999	India	Andhra Pradesh	East Godavari

Fig 6 (Admin can view on user details)

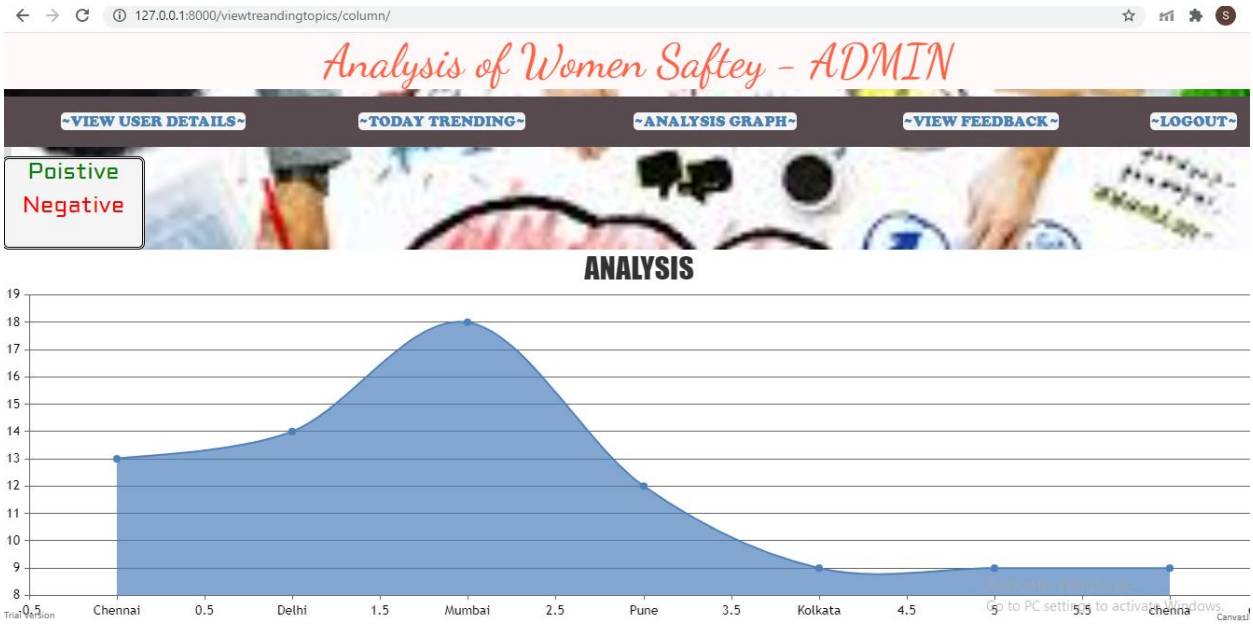


Fig 7 (Graphical representation of women safety in Indian cities-positive)

Fig 8 (Graphical representation of women safety in Indian cities-Negative)

6. CONCLUSION & FUTURE WORK

CONCLUSION

In this project, we studied various machine learning techniques aimed at facilitating the analysis of the vast amount of Twitter data obtained, including millions of tweets and text messages shared daily. Many machine learning algorithms are effective and useful in analyzing large amounts of data, including those used in classification and processing models, which help to categorize the data into relevant groups. The support vector algorithm processes data from Twitter and provides analysis that can greatly assist in women's safety in Indian cities.

FUTURE WORK

In future work, we can explore additional machine learning techniques to yield even better results. Techniques such as recurrent neural networks (RNN) for performing sentiment analysis can be employed to provide more accurate results. Currently, we are focused on analysis using these techniques, but in the future, we could also incorporate a module for sending alert messages to women who are in dangerous areas. This would enable them to react quickly and be cautious when traveling to such places.

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