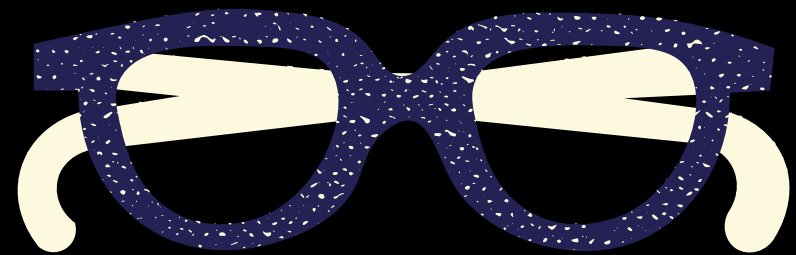


Detection of Hate Speech.

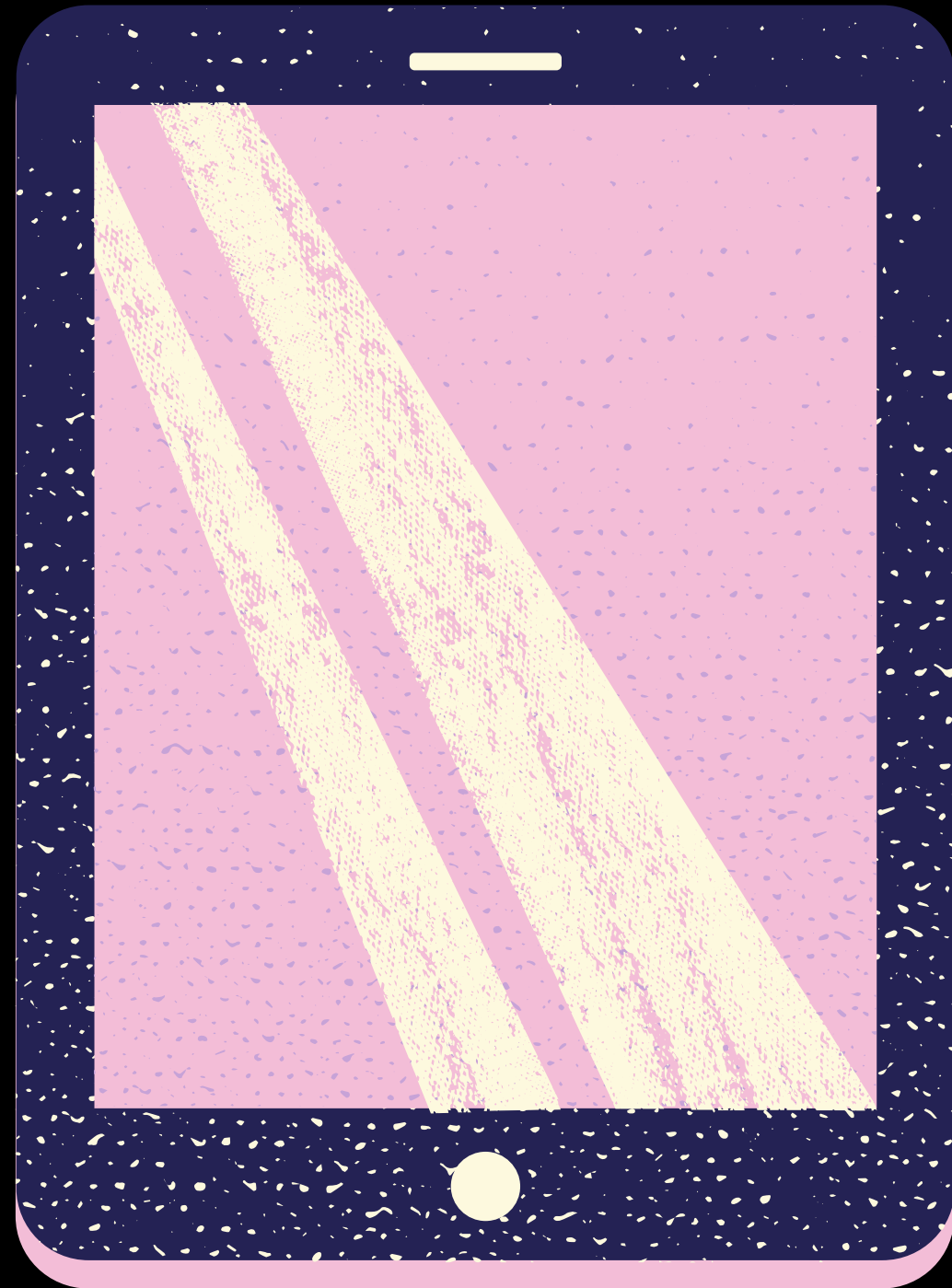
– Shaurya Sood
Rittik Basu
Sannah Saleem
Rehmat Irphany



The Project.

Hate Speech Detection

These include – foul language, discriminatory language with reference to race, nationality, gender etc.



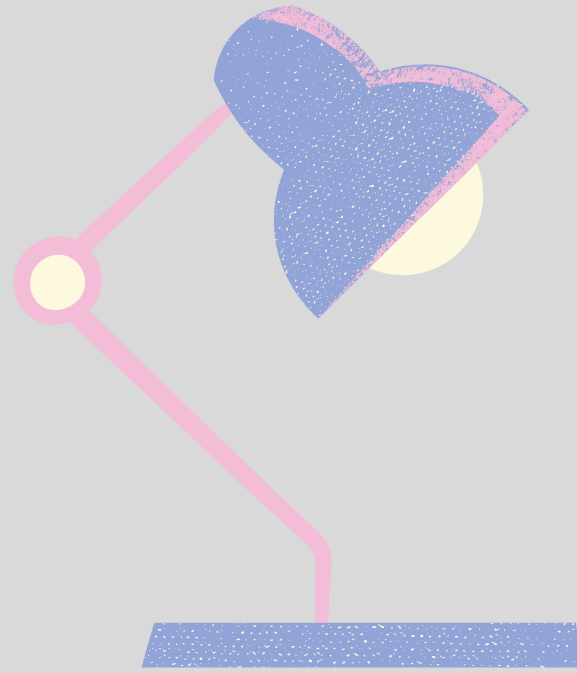
Why is it important?

- Escalation of fear and hate throughout communities
- Online discrimination has fueled the rise of cultures of hate
- Cyber-bullying is rampant.



Data collection.

- Web crawling – using "BeautifulSoup" Library
- Shuffling the data set with normal sentences.



Abstract.

Techniques used :

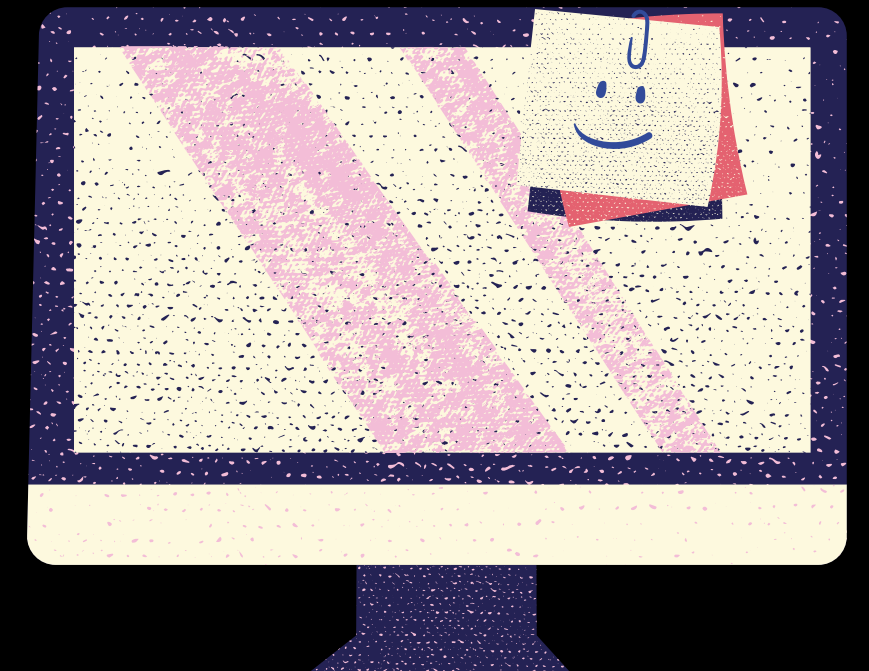
- NLP technique called Tf-idf vectorization.
- Machine learning technique called logistic regression.

Tf-idf Vectorization

- Extracts words and converts them into numbers
- Tf-idf formula is calculated using the following formula:

*TF(term frequency) * IDF(inverse-document frequency)*

$$= \frac{n(\text{frequency of term})}{N(\text{number of all words})} * \log_{10} \frac{D(\text{number of sentences in document})}{d(\text{number of sentences containing that term})}$$



- Calculate probabilities between 0 and 1
- 0 & 1 to classify and distinguish sentences from offensive to non-offensive.



Logistic Regression.

Thank you.