



## MALIGNANT COMMENTS CLASSIFICATION

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# ACKNOWLEDGMENT

I completed this project my on knowledge and taught by Data Trained Institution. Under supervision of Keshav Bansal.

# INTRODUCTION

- **Business Problem Framing**

Online hate, described as abusive language, aggression, cyberbullying, hatefulness and many others has been identified as a major threat on online social media platforms. Social media platforms are the most prominent grounds for such toxic behavior.

There has been a remarkable increase in the cases of cyberbullying and trolls on various social media platforms. Many celebrities and influences are facing backlashes from people and have to come across hateful and offensive comments. This can take a toll on anyone and affect them mentally leading to depression, mental illness, self-hatred and suicidal thoughts.

Our goal is to build a prototype of online hate and abuse comment classifier which can used to classify hate and offensive comments so that it can be controlled and restricted from spreading hatred and cyberbullying.

## Analytical Problem Framing

- **Data Sources and their formats**

The data in csv formats.

```
In [4]: df = pd.read_csv('/content/sample_data/train.csv')
df.head()
```

```
Out[4]:
```

	<b>id</b>	<b>comment_text</b>	<b>malignant</b>	<b>highly_malignant</b>	<b>rude</b>	<b>threat</b>	<b>abuse</b>	<b>loathe</b>
0	0000997932d777bf	Explanation\nWhy the edits made under my usern...	0	0	0	0	0	0
1	000103f0d9cfb60f	D'aww! He matches this background colour I'm s...	0	0	0	0	0	0
2	000113f07ec002fd	Hey man, I'm really not trying to edit war. It...	0	0	0	0	0	0
3	0001b41b1c6bb37e	"\nMore\nI can't make any real suggestions on ...	0	0	0	0	0	0
4	0001d958c54c6e35	You, sir, are my hero. Any chance you remember...	0	0	0	0	0	0

- Data Pre-processing Done
  1. We use stemming and for cleaning.
  2. After that we remove stop words.
  3. Then save in corpus.
  4. Finally, we convert into vectors.

## **Model/s Development and Evaluation**

We apply Naïve Bayes algorithm and for evaluating use accuracy score.

It gives 77% accuracy score.