



## Navigation

Go to

- ☒ Introduction
- ☐ Dataset
- ☐ Features
- ☐ Model
- ☐ Predict

# Are you being sarcastic ???

Bites Makes Right

Team members :

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Sarcasm refers to the use of words that mean the opposite of what you really want to say, especially in order to insult someone, or to show irritation, or just to be funny.

Aim : We have the Reddit Sarcasm Detection Dataset and our goal is to predict whether a given comment is sarcastic or not.



It's called sarcasm. Look it up.

# Navigation

- Go to
- Introduction
  - Dataset**
  - Features
  - Model
  - Predict

Select Graph

Dataset

# Reddit Sarcasm Dataset.

Let us understand the dataset.

Shape of the dataset (1010826, 10)

Head of the dataset

	label	comment	author	subreddit	score	ups	downs	date	created
0	0	NC and NH.	Trumpbart	politics	2	-1	-1	2016-10	2016-10-16 23:
1	0	You do know west teams...	Shbshb906	nba	-4	-1	-1	2016-11	2016-11-01 00:
2	0	They were underdogs ea...	Creepeth	nfl	3	3	0	2016-09	2016-09-22 21:
3	0	This meme isn't funny ...	icebrotha	BlackPeopleTwitter	-8	-1	-1	2016-10	2016-10-18 21:
4	0	I could use one of tho...	cush2push	MaddenUltimateTeam	6	-1	-1	2016-12	2016-12-30 17:
5	0	I don't pay attention ...	only7inches	AskReddit	0	0	0	2016-09	2016-09-02 10:
6	0	Trick or treating in g...	only7inches	AskReddit	1	-1	-1	2016-10	2016-10-23 21:
7	0	Blade Mastery+Masamune...	P0k3rm4s7	FFBraveExvius	2	-1	-1	2016-10	2016-10-13 21:
8	0	You don't have to, you...	SoupToPots	pcmasterrace	1	-1	-1	2016-10	2016-10-27 19:
9	0	I would love to see hi...	chihawks	Lollapalooza	2	-1	-1	2016-11	2016-11-21 23:
10	0	I think a significant ...	ThisIsNotKimJongUn	politics	92	92	0	2016-09	2016-09-20 17:

Number of classes 2

# Navigation

- Go to
- ☐ Introduction
  - ☒ Dataset
  - ☐ Features
  - ☐ Model
  - ☐ Predict

Select Graph

Comments

Dataset

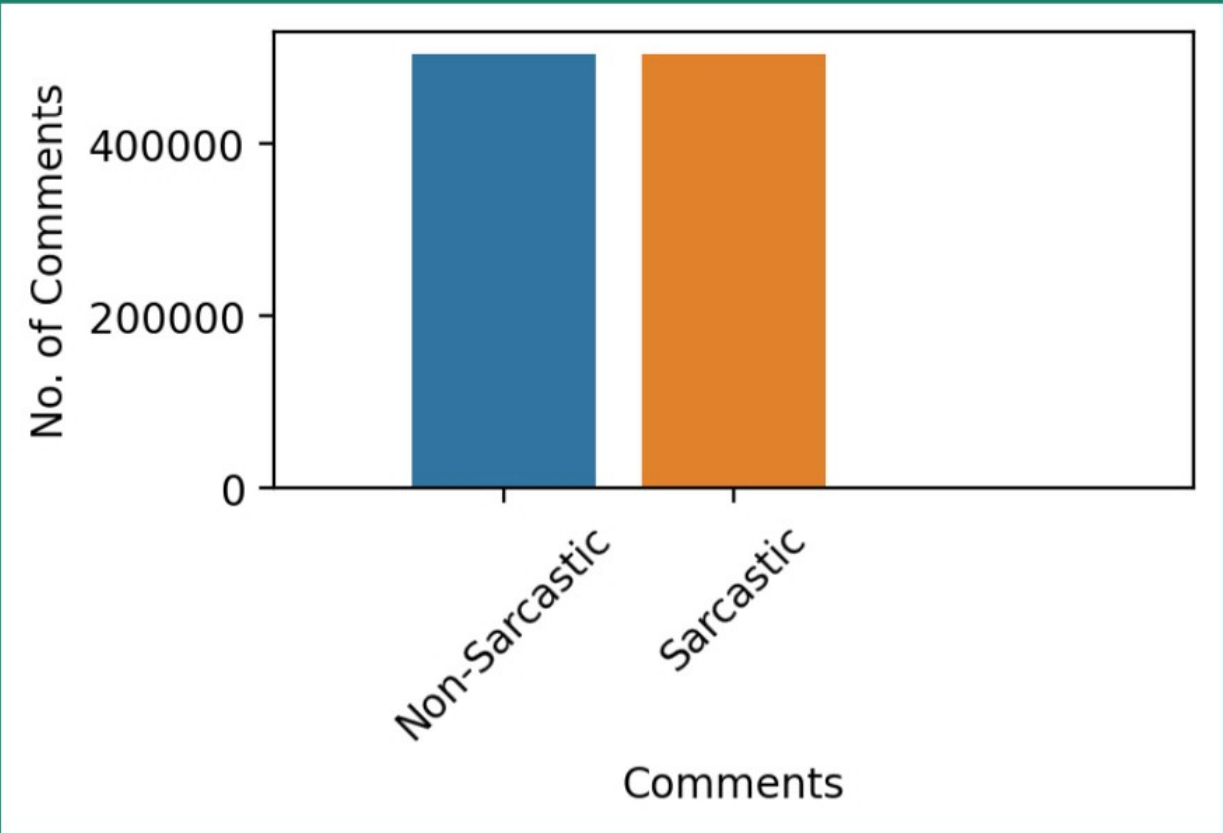
Comments

Subreddit

Wordcloud

# Reddit Sarcasm Dataset.

Count of Sarcastic and Nonsarcastic Comments



# Navigation

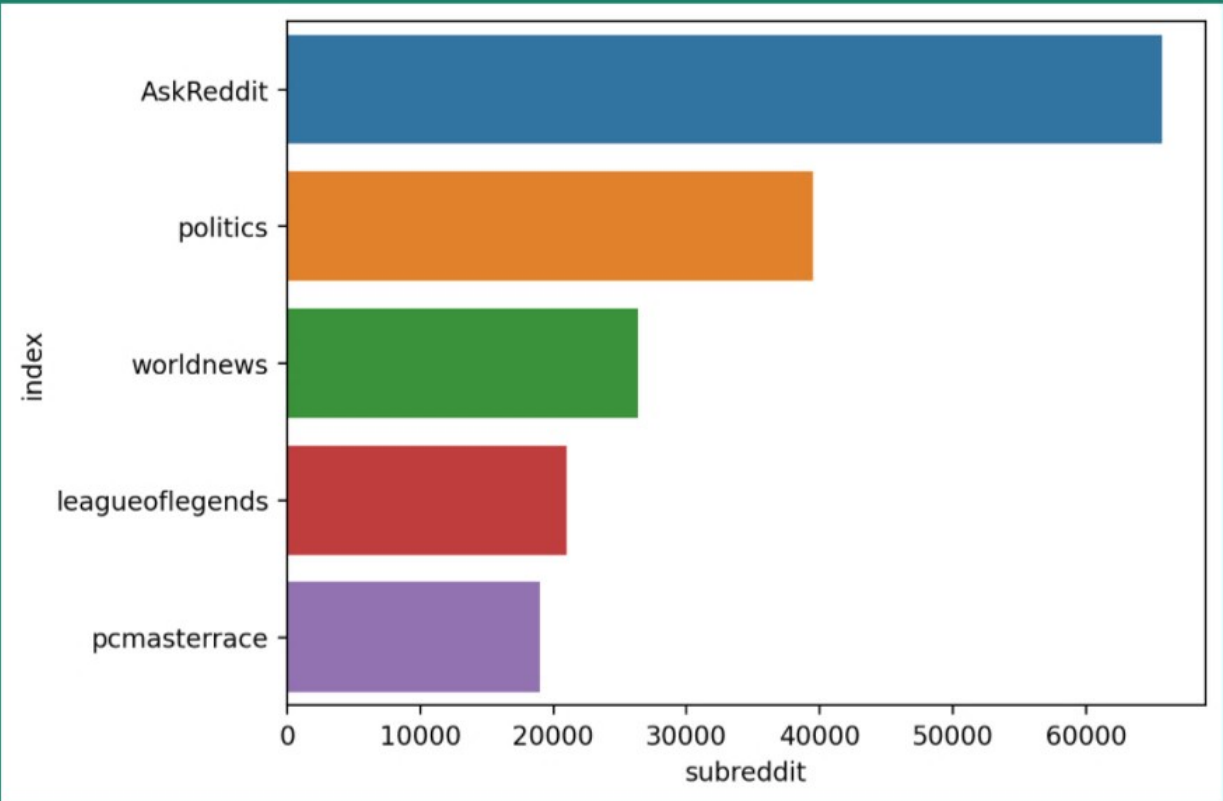
- Go to
- Introduction
  - Dataset**
  - Features
  - Model
  - Predict

Select Graph

Subreddit

# Reddit Sarcasm Dataset.

The proportion of comments for top 5 Subreddits in the dataset.







## Navigation

Go to

- ☐ Introduction
- ☒ Dataset
- ☐ Features
- ☐ Model
- ☐ Predict

Select Graph

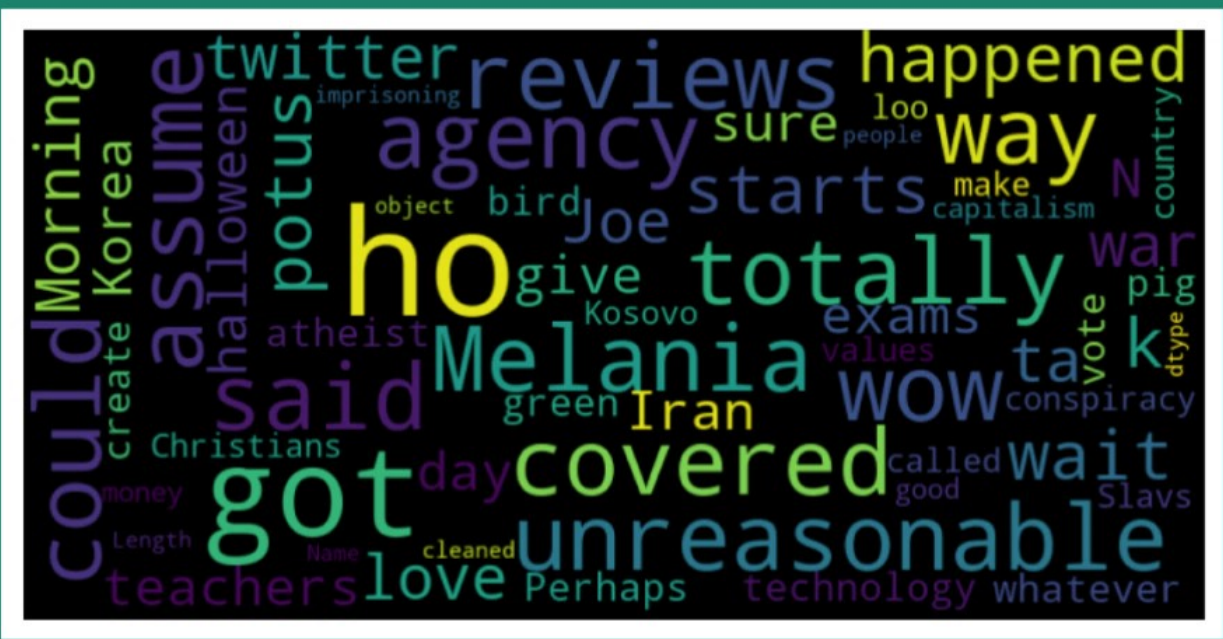
Wordcloud

# Reddit Sarcasm Dataset.

Wordcloud for comments.

Sarcastic or Non-Sarcastic

Sarcastic



## Navigation

Go to

- ☐ Introduction
- ☒ Dataset
- ☐ Features
- ☐ Model
- ☐ Predict

## Select Graph

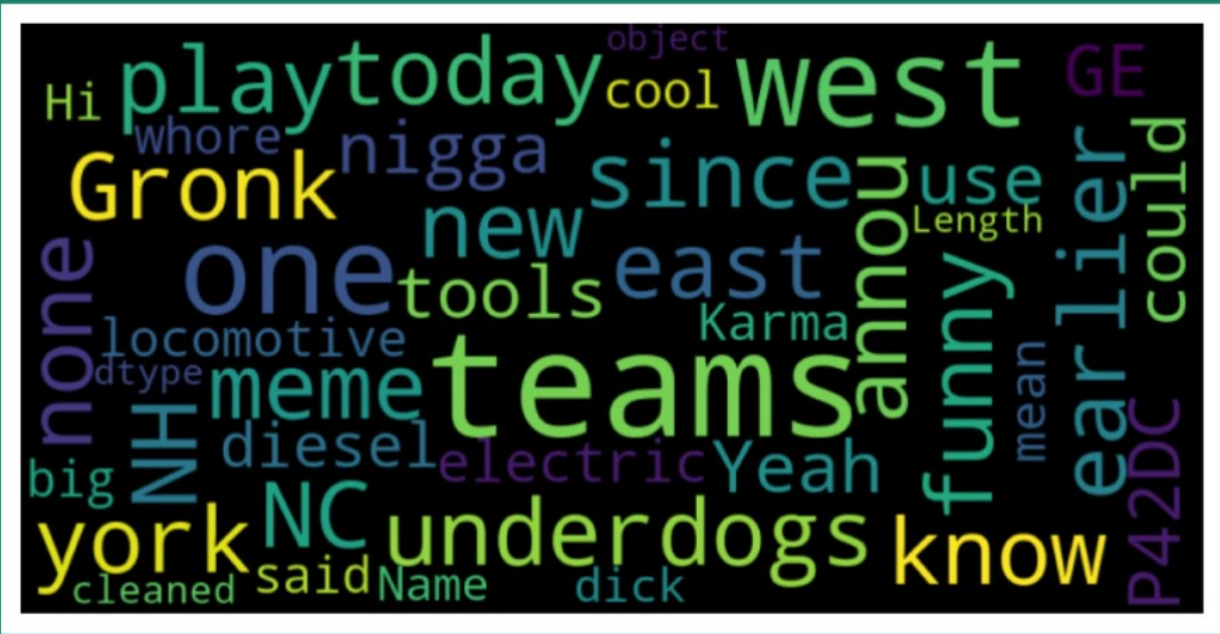
Wordcloud

# Reddit Sarcasm Dataset.

## Wordcloud for comments.

## Sarcastic or Non-Sarcastic

Non Sarcastic|



Navigation

Go to

Introduction

Dataset

Features

Model

Predict

Select Graph

Dataset

Extracted Features.

Head of the dataset

	Comment	Capital words	Total Characters	Unique Characters	Characters repeated	Capital words	Sente
0	NC and NH.	2	10	8	0	2	
1	You do know west teams...	0	74	21	0	0	
2	They were underdogs ea...	0	121	30	0	0	
3	This meme isn't funny ...	0	60	21	0	0	
4	I could use one of tho...	1	31	14	0	1	
5	I don't pay attention ...	2	112	26	0	2	
6	Trick or treating in g...	0	45	19	0	0	
7	Blade Mastery+Masamune...	1	31	21	0	1	
8	You don't have to, you...	0	62	21	0	0	
9	I would love to see hi...	1	33	16	0	1	

Number of Features extracted 16

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# Navigation

- Go to
- Introduction

Dataset

Features

Model

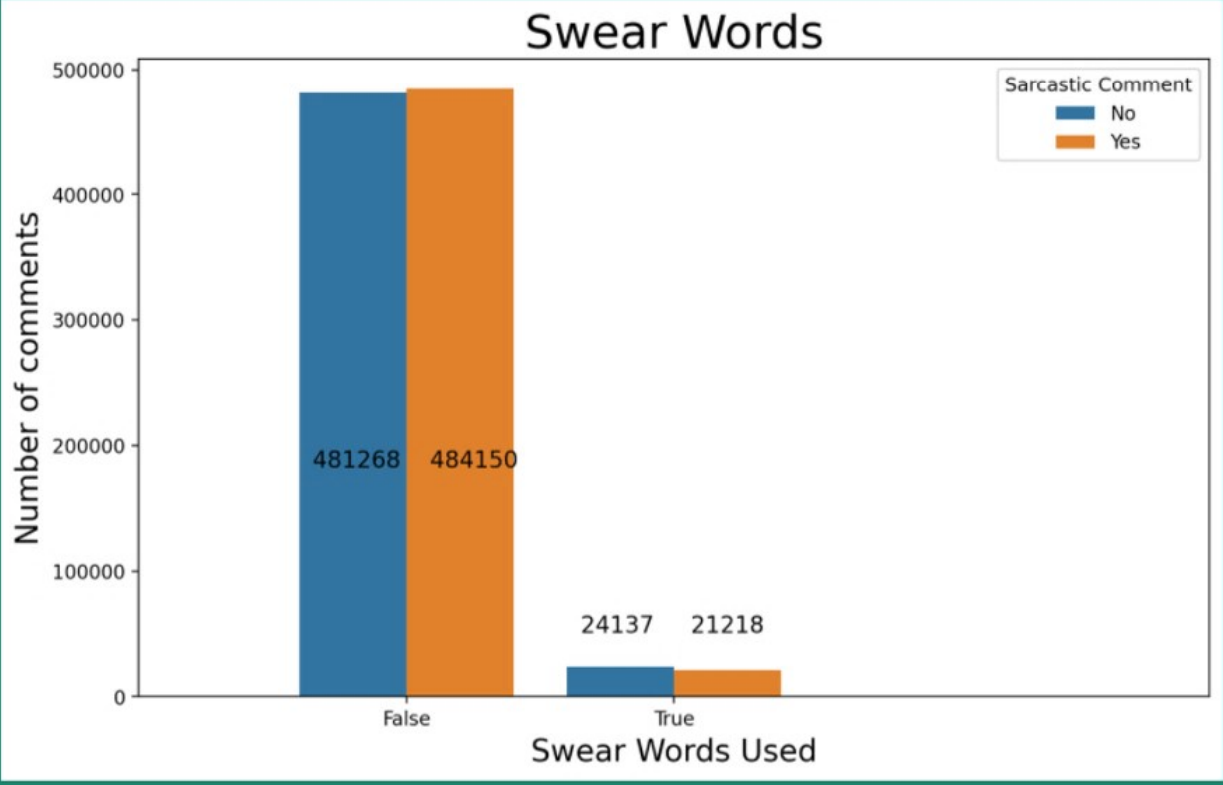
Predict

Select Graph

Swear Words

# Extracted Features.

Swear Words.





# Navigation

- Go to
- ☐ Introduction
  - ☐ Dataset
  - ☒ Features
  - ☐ Model
  - ☐ Predict

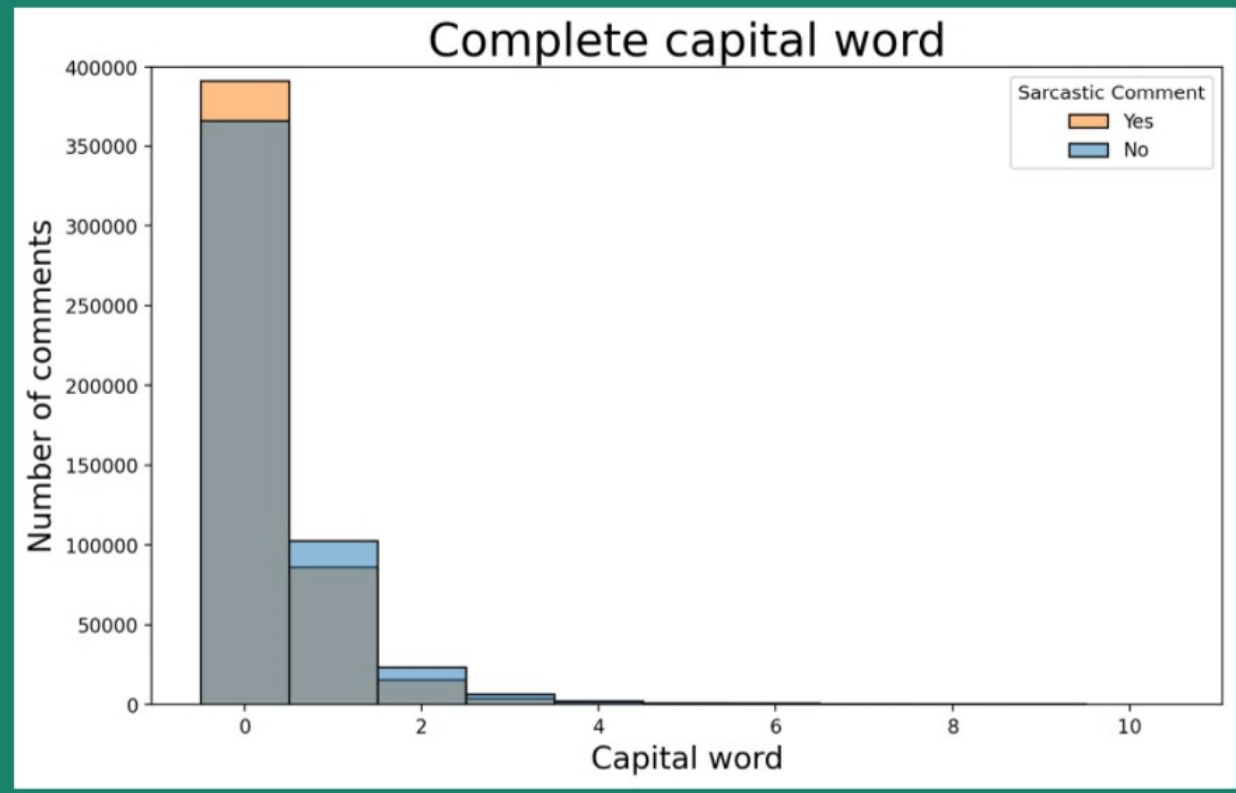
Select Graph

Capital Words



# Extracted Features.

Capital words.



# Navigation

- Go to
- ☐ Introduction
  - ☐ Dataset
  - ☒ Features
  - ☐ Model
  - ☐ Predict

Select Graph

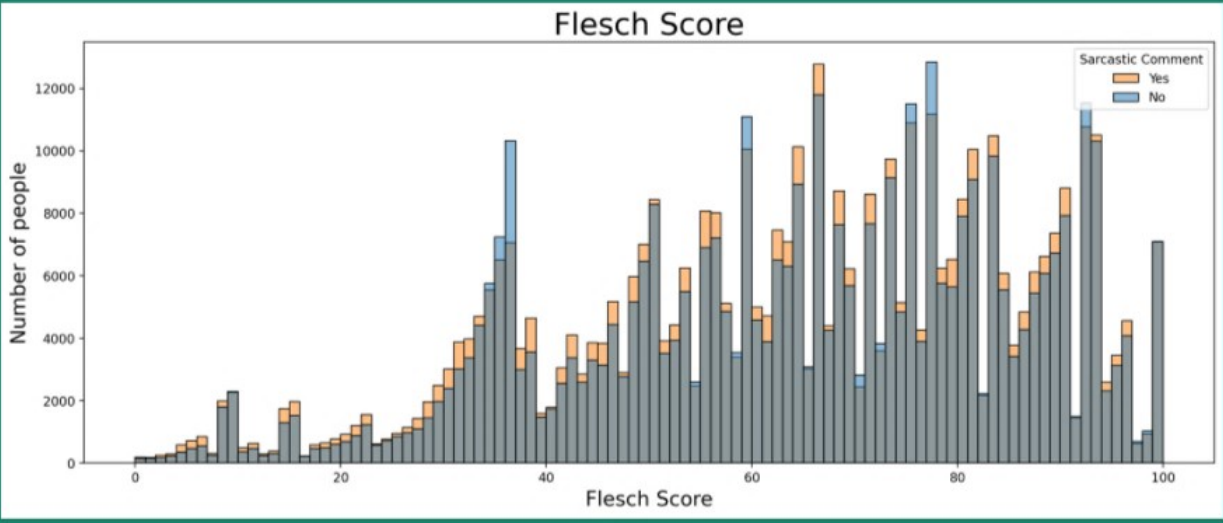
Complexity

# Extracted Features.

## Complexity.

Measure of Complexity

Flesch Score



×

Navigation

Go to

○ Introduction

○ Dataset

● Features

○ Model

○ Predict

Select Graph

Complexity

▼

☰

Extracted Features.

Complexity.

Measure of Complexity

Flesch Score

▼

Flesch Score

Sentence Length

Comment Length

Syllables per word

×

Navigation

Go to

○ Introduction

○ Dataset

●

 Features

○ Model

○ Predict

Select Graph

Sentiment

Y limit

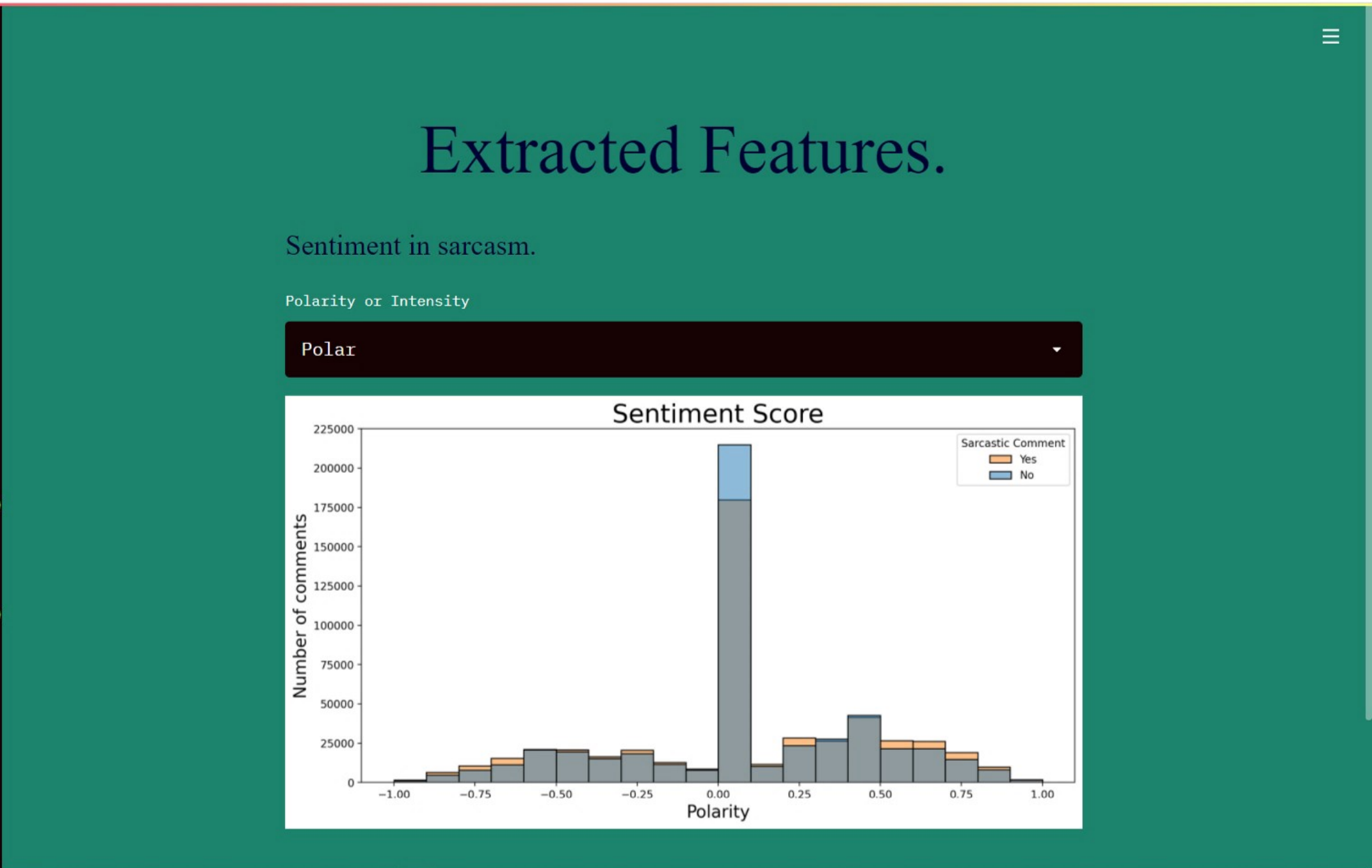
22500

225000

X Range

-1.10

1.10





## Navigation

Go to

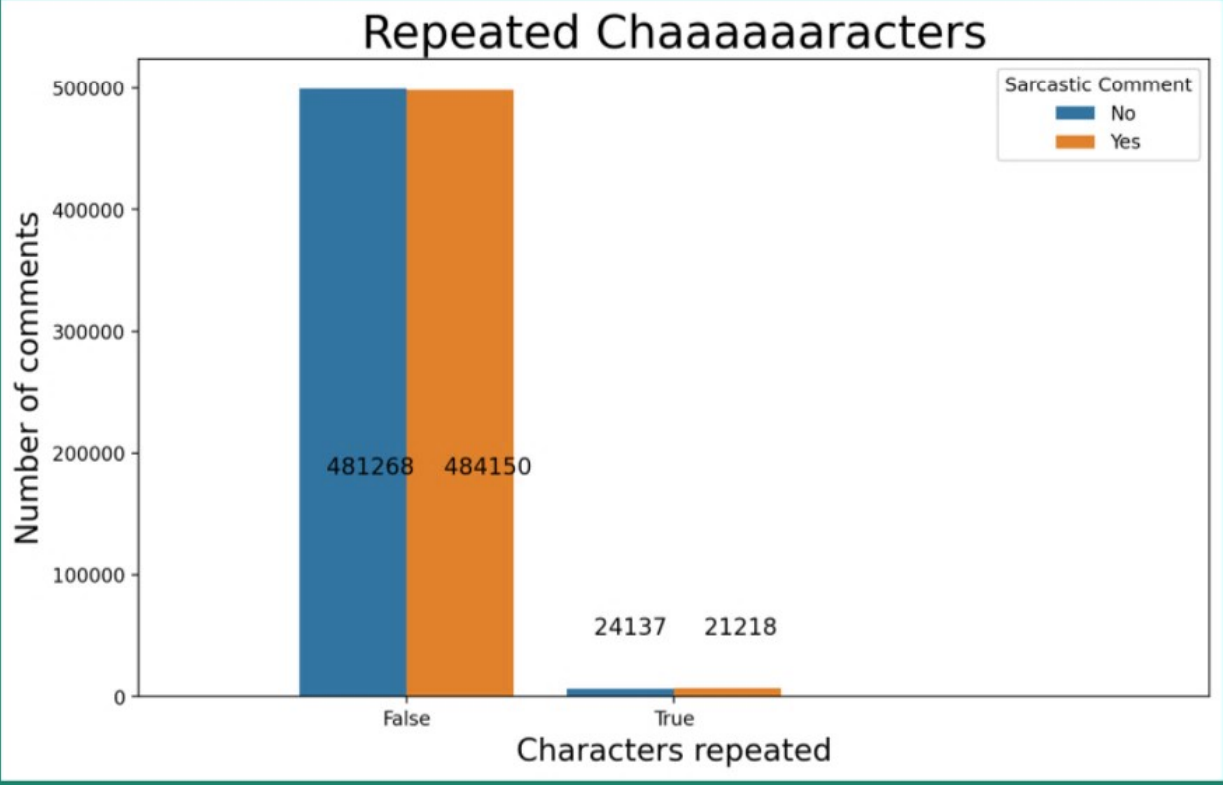
- ☐ Introduction
- ☐ Dataset
- ☒ Features
- ☐ Model
- ☐ Predict

Select Graph

- Repeated Characters
- Dataset
- Swear Words
- Capital Words
- Complexity
- Sentiment
- Punctuation
- Repeated Characters

# Extracted Features.

Repeated characters.



# Navigation

- Go to
- Introduction

Dataset

Features

Model

Predict

Select Classifier

Logistic Regression

# Machine Learning Model.

## Logistic Regression

	precision	recall	f1-score	support
0	0.7328	0.7711	0.7515	100954
1	0.7591	0.7196	0.7388	101201
accuracy	0.7453	0.7453	0.7453	0.7453
macro avg	0.7460	0.7453	0.7451	202155
weighted avg	0.7460	0.7453	0.7451	202155

Train score : 0.7465453403213879

Confusion matrix:

	0	1
0	77845	23109
1	28381	72820

# Navigation

- Go to
- Introduction

Dataset

Features

Model

Predict

Select Classifier

Random Forest Classifier

# Machine Learning Model.

## Random Forest Regression

	precision	recall	f1-score	support
0	0.7271	0.7534	0.7400	100954
1	0.7448	0.7180	0.7311	101201
accuracy	0.7356	0.7356	0.7356	0.7356
macro avg	0.7360	0.7357	0.7356	202155
weighted avg	0.7360	0.7356	0.7356	202155

Train score : 0.9976057916098825

Confusion matrix:

	0	1
0	76055	24899
1	28542	72659

×

Navigation

Go to

☐ Introduction

☐ Dataset

☐ Features

☐ Model

☒ Predict

☰

Let us do some Predictions.

Here you can check whether a comment is sarcastic or not.

Type the comment here :

This is a genuine compliment!!!

Select Subreddit.

AskReddit

Comment Score:

-10000

-

+

Predict

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