

# SENTIMENT ANALYSIS FOR MARKETING

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Phase3:Development Part 1

Project Title: Sentiment Analysis For Marketing

Phase 3: Development Part 1

Topics: [Start building the sentiment analyses for marketing model by using loading and pre-processing the dataset.](#)



## Introduction:

- Sentiment analyses is also known as opinion mining. It's an automated text analysis technique used to extract aggregated emotional information from the given text. In other words, it's used to analyze the emotions of the comments, opinion, user feedback, or any other data set.
- Sentiment analysis is a marketing tool that helps you examine the way people interact with a brand online.
- Preprocessing simply refers to perform series of operations to transform or change data. Data preprocessing refers to perform

operations on data to retrieve,transform,or  
change data.

## Large Language Models and Marketing Compaings

S.NO	Use case	Description
<u>1.</u>	Create personalized content	Use an LLM to generate personalized content for each individual customer,such as email.
<u>2.</u>	Create ad copy	Use an LLM to geverate ad copy that is more likely to resonate with customers by understanding their intent and what they are looking for.
3.	Improve customer service	Use an LLM to provide more personalized and informative responses to customer inquiries,such as by understanding their question and providing them with the most relevent information.
4.	Optimize marketing compaings	Use an LLM to optimize marketing campaigns by understanding how customers are interacting with them,such as by tracking customer clicks,views,and engagement.

## TextBlob Library

1. Install TextBlob: If you haven't already, you'll need to install the TextBlob library. You can do this using pip:

```
pip install textblob
```

2. Import TextBlob and Necessary Libraries:

```
from textblob import Textblob
```

3. Analyze Sentiment: You can analyze the sentiment of your

marketing text using Textblob like this:

```
# Create a TextBlob object with your marketing  
text
```

```
marketing_text="Your marketing text goes here."
```

```
blob=TextBlob(marketing_text)
```

```
#Perform sentiment analysis
```

```
sentiment=blob.sentiment
```

```
#Print sentiment polarity and asubjectivity
```

```
printf("Polarity:{sentiment.polarity}")
```

```
printf("subjectivity:{sentiment.subjectivity}")
```

- Polarity ranges from -1 (negative) to (positive)
- subjectivity ranges from 0 (objective) to (subjective).

## Data preprocessing.

- Data preprocessing in the context of sentiment analysis refers to the set of techniques and steps applied to raw text data to transform it into a suitable format for sentiment classification tasks.
- It need to clean your data and remove any noise or irrelevant information.

### Steps:

#### 1. Data Collection:

Gather data from various sources such as social media, customer reviews, surveys, or any text data relevant to your marketing efforts.

### Data cleansing:

Remove duplicates and irrelevant data.

Handle missing values.

Remove special characters, HTML tags, or URLs.

### Text preprocessing:

Stopword removal to eliminate common words that don't carry sentiment.

Handle encoding issues, if any.

### Labeling:

Assign sentiment labels to the data based on your analysis goals.

## Data Splitting:

Divide the datasets into training, validation, and testing sets. This is crucial for model evaluation.

