#### NAAN MUTHALVAN

#### ARTIFICIAL INTELLIGENCE

#### **PROJECT TITLE**

## SENTIMENT ANALYSIS FOR MARKETING

#### PHASE 1

REG.NO: 712221104001

**NAME: DHANUSH A** 

**DEPT: COMPUTER SCIENCE AND ENGINEERING** 

**YEAR & SEM : III & 05** 

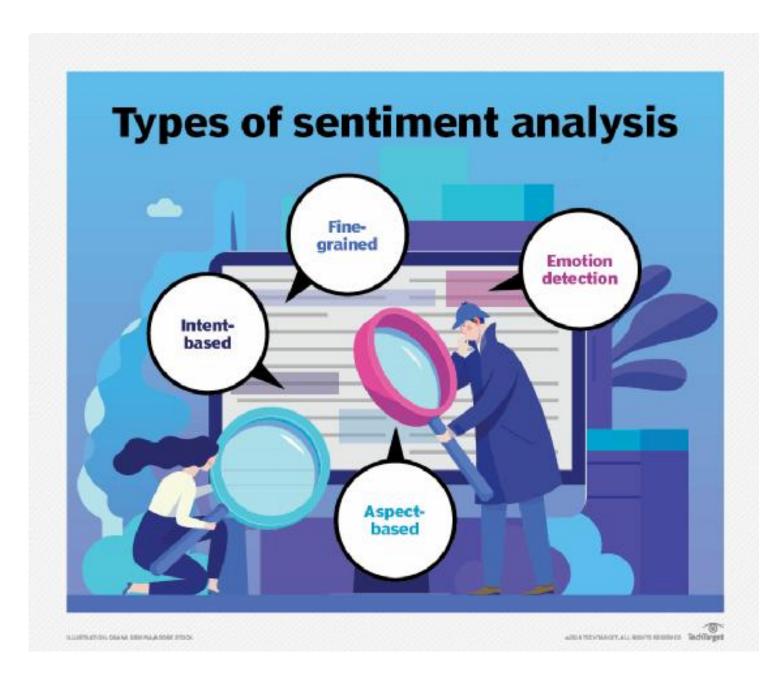
**COLLEGE: PARK COLLEGE OF ENGINEERING AND** 

**TECHNOLOGY** 

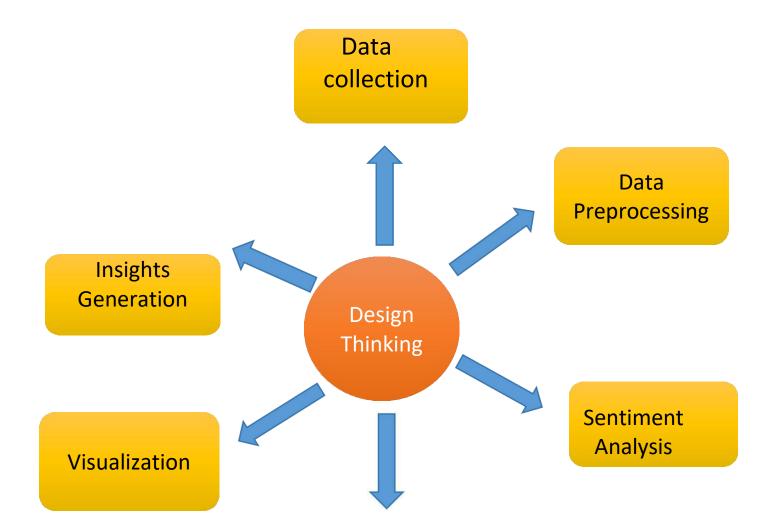
# PROBLEM DEFINITION AND DESIGN THINKING

#### PROBLEM DEFINITION

Sentiment analysis, also referred to as opinion mining, is an approach to natural language processing (NLP) that identifies the emotional tone behind a body of text. This is a popular way for organizations to determine and categorize opinions about a product, service or idea.



#### **DESIGN THINKING**



Feature Extraction

#### Data collection

Identify a dataset containing customer reviews and sentiments about competitor products.



### **Data Preprocess**

Clean and preprocess the textual data for analysis.



Clean





Analysis



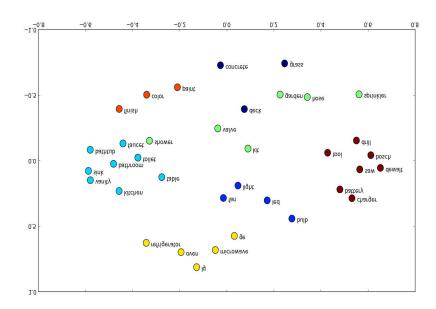
**Preprocess** 

### Sentiment Analysis Techniques

Employ different NLP techniques like Bag of Words, Word Embeddings, or Transformer models for sentiment analysis.



Bag of words



**Word Embeddings** 

#### **Feature Extraction**

Extract features and sentiments from the text data



#### Visualization

Create visualizations to depict the sentiment distribution and analyze trends.



**Visual Insights** 

## **Insights Generation**

Extract meaningful insights from the sentiment analysis results to guide business decisions.

How to use your financial projections to guide your business decisions

