

Vidyavardhini's College of Engineering & Technology

Department of Computer Science & Engineering (Data Science)

Experiment No. 10

<u>Aim:</u> Develop social media text analytics models for improving existing product/ service by analyzing customer's reviews/comments.

Theory:

Text analytics models are machine learning models that are specifically designed to analyses and extract insights from unstructured text data, such as social media posts, customer reviews, and news articles. These models use natural language processing (NLP) techniques to understand the meaning of text data, and can help businesses gain insights into customer sentiment, product feedback, and other important information. There are several types of text analytics models, including:

- Sentiment analysis models: These models are designed to identify the sentiment or
 emotion expressed in text data, such as positive, negative, or neutral. Sentiment analysis
 models can be used to analyses customer feedback, social media posts, and other forms
 of unstructured data to understand customer sentiment and improve customer
 experience.
- Entity recognition models: These models are designed to identify and extract named entities from text data, such as people, organizations, and locations. Entity recognition models can be used to analyses news articles, social media posts, and other forms of unstructured data to gain insights into key players and events in a particular industry or domain.
- Topic modeling models: These models are designed to identify the key topics or themes present in text data. Topic modeling models can be used to analyses large volumes of text data, such as social media posts or news articles, to understand the content and gain insights into customer preferences and trends.
- Text classification models: These models are designed to classify text data into predefined categories or topics. Text classification models can be used to analyses customer feedback, social media posts, and other forms of unstructured data to understand customer preferences and improve customer experience.
- Text clustering models: These models are designed to group similar pieces of text data together based on their content. Text clustering models can be used to analyses large volumes of text data and identify patterns and trends.

Meaning Cloud:

A variety of tools are available through the cloud-based text analytics platform Meaning Cloud for evaluating and deriving meaning from unstructured text data. The platform analyses text data using natural language processing (NLP) methods, such as sentiment analysis, entity recognition, and topic extraction. Sentiment analysis, which entails examining text data to identify the underlying sentiment or emotion expressed in the text, is one of Meaning Cloud's core capabilities. Understanding customer reviews, sentiment on social media, and other types of unstructured data can all benefit from this. The sentiment analysis tool from Meaning Cloud can evaluate content in a variety of languages and assign each piece of text a sentiment scores that ranges from negative to positive.



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Output:

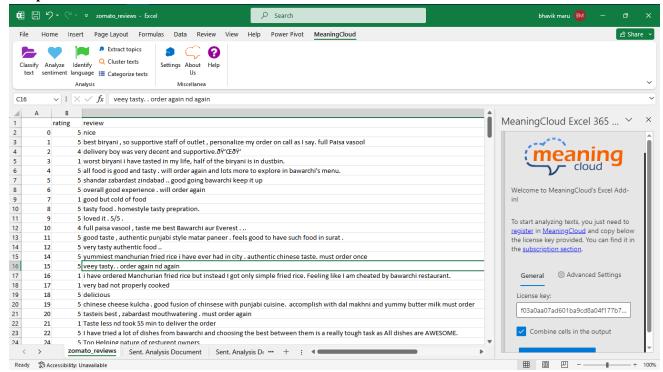


Fig 1: Meaning cloud dashboard

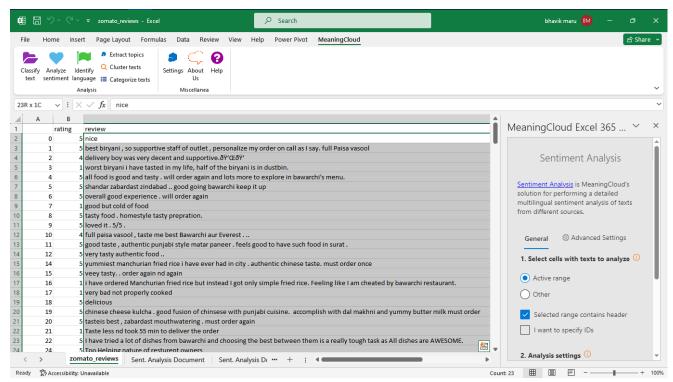


Fig. 2 Select text to be analyzed



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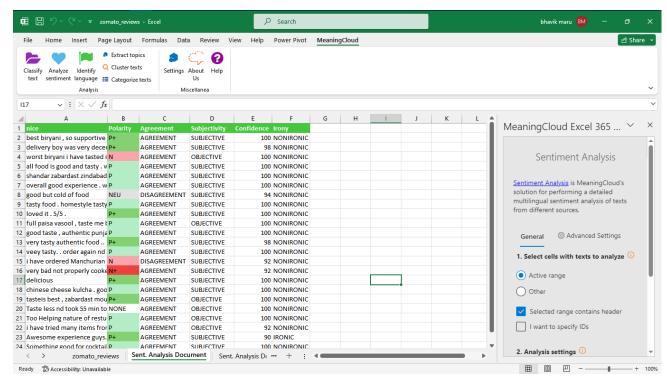


Fig. 3 Text Analysis

Conclusion: