EXPERIMENT NO.5

**AIM:** To Develop Content based social media analytics model for business.

**RESOURCES REQUIRED:** Windows/MAC/Linux O.S, Compatible version of Python.

**THEORY:**

**What Is Topic Analysis?**

Topic analysis (also called topic detection, topic modeling, or topic extraction) is a [machine](https://monkeylearn.com/blog/gentle-guide-to-machine-learning/) [learning](https://monkeylearn.com/blog/gentle-guide-to-machine-learning/) technique that organizes and understands large collections of text data, by assigning “tags” or categories according to each individual text’s topic or theme.Topic analysis uses natural language processing (NLP) to break down human language so that you can find patterns and unlock semantic structures within texts to extract insights and help make data-driven decisions. The two most common approaches for topic analysis with machine learning are NLP topic modeling and NLP topic classification.

# What Is Trend Analysis?

Trend analysis is a technique used in [technical analysis](https://www.investopedia.com/terms/t/technicalanalysis.asp) that attempts to predict future stock price movements based on recently observed trend data. Trend analysis uses historical data, such as price movements and trade volume, to forecast the long-term direction of market sentiment.

# What is sentiment analysis (opinion mining)?

Sentiment analysis, also referred to as opinion mining, is an approach to natural language processing ([NLP](https://www.techtarget.com/searchbusinessanalytics/definition/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. It involves the use of [data mining](https://searchsqlserver.techtarget.com/definition/data-mining), machine learning ([ML](https://www.techtarget.com/searchenterpriseai/definition/machine-learning-ML)) and artificial intelligence ([AI](https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence)) to [mine text](https://www.techtarget.com/searchbusinessanalytics/definition/text-mining) for sentiment and subjective information.

# Audio, video, image analytics:

Image analysis or imagery analysis is the extraction of meaningful information from [images](https://en.wikipedia.org/wiki/Image); mainly from [digital images](https://en.wikipedia.org/wiki/Digital_image) by means of [digital image processing](https://en.wikipedia.org/wiki/Digital_image_processing) techniques. Image analysis tasks can be as simple as reading [bar coded](https://en.wikipedia.org/wiki/Barcode) tags or as sophisticated as [identifying a person from their face.](https://en.wikipedia.org/wiki/Facial_recognition_system)Video content analysis or video content analytics (VCA), also known as video analysis or video analytics (VA), is the capability of automatically analyzing [video](https://en.wikipedia.org/wiki/Video) to detect and determine temporal and spatial events. This technical capability is used in a wide range of domains including entertainment, [video retrieval](https://en.wikipedia.org/wiki/Video_retrieval) and [video](https://en.wikipedia.org/wiki/Video_browsing) [browsing](https://en.wikipedia.org/wiki/Video_browsing), health-care, retail, automotive, transport, [home automation](https://en.wikipedia.org/wiki/Home_automation), flame and smoke detection, safety, and security. The [algorithms](https://en.wikipedia.org/wiki/Algorithm) can be implemented as software on general-purpose machines, or as hardware in specialized video processing units.

**CONCLUSION:** Hence, we have successfully studied to Develop Content based social media analytics model for business