News Analysis Project:

1. Sentiment Analysis
2. Text summarization
3. Finding common themes across many articles
4. Finding Aspect

Tools used: Pandas, Numpy, regex, VaderSentiment, Longformers, BERTopic, Spacy.

**Sentiment analysis:**

***Important library used:*** Vader sentiment, It gives dictionary output for a given sentence with negative, positive, neutral and compound sentiment scores.

All of the news articles were neutral so it was required to see the second highest sentiment towards which the article is tilting. So I used sentiment as well as tilting variables to see the second highest sentiment.

**Article Summarization:**

***Important library used***: Longformer, It summarizes the text even when text has upto 4000 tokens which is most suitable for long articles.

Summarized the articles and stored in the CSV attached.

**Finding common themes across many articles:**

***Important library used*:** BERTopic, which tries to find the common topic across a set of documents.

It Could not find any common idea across the articles.

**Finding Aspects:**

Used Spacy to extract important keywords

*Sentiment and Big Ideas files are in Github Repo*