

OVERVIEW

• This solution architecture template provides a high-level overview of the steps involved in building a system to perform sentiment analysis on commodity news (gold). The system will use natural language processing (NLP) and machine learning (ML) techniques to extract sentiment from news articles and other text related to the gold commodity market.

Solution Architecture Template for Sentiment Analysis of Commodity News (Gold) **Data collection** Data preprocessing **Feature engineering Model training Model evaluation Model deployment**

1-Data collection

The first step is to collect a large corpus of news articles and other text related to the gold commodity market. This data can be collected from a variety of sources, such as financial websites, news aggregators, and social media platforms.

2-Data preprocessing

Once the data has been collected, it needs to be preprocessed to remove noise and inconsistencies. This may involve steps such as cleaning the text, removing stop words, and stemming or lemmatizing the words.

3-Feature engineering

Once the data has been preprocessed, it needs to be converted into a format that can be used by the ML model. This may involve creating features such as bag-of-words, n-grams, and part-of-speech tags.

4-Model training:

The next step is to train an ML model to predict the sentiment of news articles and other text related to the gold commodity market. There are a variety of ML algorithms that can be used for sentiment analysis, such as support vector machines (SVMs), logistic regression, and Naive Bayes.

5-Model evaluation

Once the model has been trained, it needs to be evaluated on a held-out test set to assess its performance. This will help to ensure that the model is generalizing well to unseen data.

6-Model deployment

Once the model has been evaluated and deemed to be performing well, it can be deployed to production. This may involve integrating the model into a web application or developing a standalone script to run the model on a regular basis.

ADDITIONAL CONSIDERATIONS

- The system should be able to handle realtime data processing to provide up-to-date insights into the sentiment of the gold market.
- The system should be able to scale to handle large volumes of data.
- The system should be able to be updated regularly to reflect changes in the language and sentiment of the gold market.



CONCLUSION

• This solution architecture template provides a high-level overview of the steps involved in building a system to perform sentiment analysis on commodity news (gold). The system can be used to gain insights into the overall sentiment of the gold market, which can help traders and investors make informed decisions about buying and selling gold.