# Datasheet Template

For the Capstone Project,I am going to dynamically query the TTF Natural Gas Futures closing prices through Yahoo Finance.

Using Yahoo's python library to diretly query the data for the said ticker

https://finance.yahoo.com/quote/TTF%3DF/history?p=TTF%3DF

## Motivation

- For what purpose was the dataset created?

- The Yahoo Finance API is a range of libraries/APIs/methods to obtain historical and real time data for a variety of financial markets and products, as shown on Yahoo Finance- https://finance.yahoo.com/

The main motivation to using yahoo finance is due to this being.

- Free

- Impressive range of data

- Quick and easy to set yourself up

- Simple

## Composition

- The dataset includes closing prices of TTF Natural Gas Futures settled on NYMEX.

https://finance.yahoo.com/quote/TTF%3DF?p=TTF%3DF

- There are two instances of dataset used

- Historic data since 1st of Jan 2020 till 31st March 2023

- Last 5-month daily data

- There is no missing data identified from the dataset queried.

- The data is freely available on Yahoo Finance and does not contain any sensitive details to any person or company.

## Collection process

- How was the data acquired?

- yfinance is a popular open-source library developed by Ran Aroussi.

It’s completely free and super easy to setup- a single line to install the library:

$ pip install yfinance --upgrade --no-cache-dir

And to use, where you just create a ticker object with a ticker symbol, and then simple method calls on the object return absolutely everything you could want to know.

- The sample data is collected for over a period of three year and is used train and test the models

- Historic data since 1st of Jan 2020 till 31st March 2023

- Last 5-month daily data

## Preprocessing/cleaning/labelling

- Was any pre-processing/cleaning/labelling of the data done (e.g., discretization or bucketing, tokenization, part-of-speech tagging, SIFT feature extraction, removal of instances, processing of missing values)? If so, please provide a description. If not, you may skip the remaining questions in this section.

- The raw data is not downloaded or saved as copies of data. Data is dynamically queries and stored in memory for the purpose of the exercise to develop a Capstone project.

For LSTM model the data is transformed to fit into required model parameters.

## Uses

- The data available from yahoo finance is used as information only and provide for research and education purpose.

- Is there anything about the composition of the dataset or the way it was collected and pre-processed/cleaned/labelled that might impact future uses? For example, is there anything that a dataset consumer might need to know to avoid uses that could result in unfair treatment of individuals or groups (e.g., stereotyping, quality of service issues) or other risks or harms (e.g., legal risks, financial harms)? If so, please provide a description. Is there anything a dataset consumer could do to mitigate these risks or harms?

## Distribution

- All data provided on Yahoo Finance is provided for informational purposes only and is not intended for trading or investing purposes.

- The copyright or other intellectual property (IP) licenses are described under Yahoo Finance Data Privacy terms and conditions

## Maintenance

- The dataset is maintained by Yahoo Finance