Deadline: April 21st, 2023
Date: April 14th, 2023

ASK: the right questions

Topic: Investments and Stock Analysis
Problem: Which stock is the best "buy" from the given list?
Metrics: *Moving average, trends, mean, price, volume*
Stakeholders: Hedge Fund/Investors

Key Tasks
1. Identify the business task
2. Determine key stakeholders
3. Choose a dataset
4. Establish metrics

This analysis can help my client decide which stock is the better buy.

Deliverable: a clear statement of the business task you have selected to investigate.
1. What type of company does your client represent, and what are they asking you to accomplish?
The hedge fund ranks which Tech Stock to buy.

2. What key factors are involved in the business task you are investigating?
The key factors are the Trends Calculated by the Moving Average, Closing Price, and Volume

3. What type of data will be appropriate for your analysis
Datasets on the 5 various Stocks [Amazon, Apple, Google, Microsoft, Meta]

4. Where will you obtain the data?
Online/Kaggle

5. Who is your audience, and what materials will help you present to them effectively?
My audience is my friends unfamiliar with Technical Tools such as MA, explaining MA will help

<u>**Business Task:**</u>
Rank biggest tech stocks: Imagine a hedge fund wants to choose the best tech stock from the Top 5 biggest market caps in the stock market. Explore 5 years' worth of data on the individual companies, and consider the companies' growth and rankings based on the trends on the trends calculated from various moving averages. Which tech stock should the hedge fund buy?

Rank stock picks: imagine a hedge fund wanting to make a decision on what stocks to choose from a list of stocks. Explore data over the past few years, consider which stocks are priced in the top five at the beginning of their years, and how the prices shift over time. Which stock shows potential to be the "best" buy?

Expand the vacation rental market: Imagine a real estate management company that wants to determine if it should expand into a new geographic area. Use public data from Airbnb to answer questions about the vacation rental market in a specific area. Investigate how neighborhoods or amenities influence Airbnb prices, what listings are rented most frequently, and where super hosts are located.

Quarters and stocks: quarters can have an impact on consumer interest in a variety of products. Do earlier quarters increase the prices of stocks? Do later quarters decrease stock prices? And do more volatile tech stocks increase when the quarter is later? Use public data from... to discover insightful quarter-related stock price patterns.

defining business task
to data-driven recommendations
choose topic
ask the right questions
identify fresh data and ensure the integrity
conduct analysis
create compelling data visualizations
prepare a presentation

Produce a report with the following deliverables
1. a clear statement of the business task you have selected
3. documentation of any cleaning or manipulation of data
4. a summary of your analysis
5. supporting visualizations and key findings
6. based on what you discover, a list of additional deliverables you think would be helpful to include for further exploration
7. your top high-level insights based on your analysis
~ 30 min presentation

PREPARE: pick a dataset in Kaggle

Guiding Questions
where is your data located?
Kaggle

how is the data organized?
CSV, Graphs are given, Nominal

are there issues with bias or credibility in this data?
Does your data ROCCC? Yes, no bias

how are you addressing licensing, privacy, security and accessibilty?
Stored in local device

how did you verify the data's integrity?
By its retrievability and accessibility within Kaggle

how does it help you answer your question? **Calculating MA from the data**

are there any problems wit**h the data? No**

Key tasks

1. Download data and store it appropriately. **Personal Computer**
2. Identify how its organized, Date, Open, High, Low, Close, Adj Close, Volume
3. Sort and filter data.
4. Determine the credibility of the data. **Data is taken from the Stock Market**

Deliverable
A description of all data sources used

Historical Stock Data of all daily statistics related to Apple (AAPL), Amazon (AMZ), and Google (GOOGL) stock trading since _, including closing price, opening price, maximum price, and volume

Apple: https://www.kaggle.com/datasets/tarunpaparaju/apple-aapl-historical-stock-data
Amazon: https://www.kaggle.com/datasets/kannan1314/amazon-stock-price-all-time
Google: https://www.kaggle.com/datasets/varpit94/google-stock-data