



Problem Statement - I

You are now familiar with the basics of the financial domain and dealt with a few concepts of stock markets in detail. As part of this capstone, you will apply the knowledge on a problem case. Let's hear from Joydeep as he introduces the required elements here.



Now, let's move the case at hand.



However, in most of the cases, they either lack the skills to identify the right investment opportunity, or there is a shortage of time for finding these opportunities. Hence, this gave rise to the dedicated individuals who perform this task on behalf of the investors for a commission - Portfolio managers.

A portfolio manager makes investment decisions and carries out other related activities on behalf of vested investors. They work with a team of analysts and researchers, and their main objective is to realise the needs of the investor and suggest a suitable portfolio that meets all the expectations. They are responsible for establishing the best investment strategy, selecting appropriate investments along with the right allocation. However, in doing so, they face a lot of competition in the form of other portfolio managers and rival firms. Therefore, the portfolio manager has to use the available resources to provide the best solution to the investor.

Consider yourself working for an associate at an investment firm that manages accounts for private clients. Your role requires you to analyse a portfolio of stocks to provide consultation on investment management based on client's requirement. Let us now understand the terms involved in the entire process.

- **Client:** A client for any portfolio management firm is an investor who lets the firm handle the funds for him/her.
- **Prospect:** A prospect is a potential client who has funds to invest in the market but is not associated with the firm.
- **Investment fund:** This is the amount that the individual is willing to invest in the market.

- **Investment horizon:** It is the term used to describe the total duration of time that an investor expects to hold a security or a portfolio.
- **Financial goals:** Any individual invests the present wealth with a goal in mind. These goals could be associated with a retirement plan, financing a loan or a future expense, asset creation, etc.

You are aware that is essential for a portfolio manager to get a good understanding of the client/prospect and the market elements to perform better. So before you start understanding the problem, you decide to use a 5W's + How analysis to understand these details thoroughly. Hence, you are provided with a document below that contains sample questions for each of the elements discussed above. Replace the questions with blanks '---', writing suitable questions that you would ask to know the situation better.

**Structured Problem Solving - 5Ws+How****Download**

Note: The above document needs to be filled with relevant questions that can be answered with the help of the information provided ahead in the problem statement. Hence, you must provide open-ended questions only if relevant questions cannot be formed using the provided information.

Now, let's assume that you have framed relevant questions to understand the case after conducting the 5W's + How analysis on the above table. However, it is essential that you

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Your task is to provide consultation to Ms Alexandra Kolishnyick (aka Alexa) based on her requirements and financial objectives. You can refer to the elements mentioned in the video to develop the investor persona. The image below summarises the profile of the investor:



- Intends to form an NGO later with batchmates to support sub-Saharan African region
- Is emotionally supported by family over the same



Financials

- Has huge savings from the money sent by parents for daily expense till date
- Refused to take any help from parents in establishing the NGO
- Wants to invest the saved money during her college to use the matured amount for NGO



Investor Persona

- Not eager to disclose any information investment amount
- Conservative: Wants to invest in stocks which shows promise but are also stable
- Wants a comprehensive report on all the metrics used to devise the investment strategy

Based on the provided information, you must **complete the document with the answers** to all the questions mentioned in the 5Ws+How analysis above. This will form the **first submission** for the capstone. Therefore, you are asked to restrict to relevant questions in the document.

Now, you must have a good understanding of the investor and the expected outcome from you as a portfolio manager. Let's hear about your tasks in more detail from Joydeep.



Following points summarise the expected tasks in the assignment:

1. You must use the elements of technical analysis to understand the trend of the underlying stocks. The metrics associated with risk and returns must help you realise whether the security meets the criteria of your investor's financial goals.
2. You must use the metrics and the visualisations to compare the performance of the available securities against each other, and also against the market index, S&P500.
3. The findings should be aligned with the investor persona to select the appropriate stocks for the portfolio. You are expected to validate the same using the Capital Asset Pricing Model (CAPM) before including the stock in the portfolio.
4. After the selection of suitable stocks, you must apply a suitable predictive model to estimate the returns from the portfolio at the end of the investment period. You must check if the portfolio has the potential to fulfil the financial goals of the investor.

The next segment will help you with each task in detail.

Data Description

You can download the data from the provided link below.

**Dataset_Finance_BA_Capstone****Download**



2. Open price: Price of stock at the start of the day
 3. Close price: Price of stock at the end of the day
 4. High price: Highest price reached by the stock on that day
 5. Low price: Lowest price reached by the stock on that day
 6. Adjusted close price: Stock price adjusted to include the annual returns (dividends) that the company offers to the shareholders
 7. Volume traded: Number of stocks traded on the day
- The information for every stock ranges from 1st October 2010 to 30th September 2020.
 - The stocks belong to different domains:
 - Technology/IT
 - Travel/Aviation/Hospitality
 - Banking/Financial Services and Insurance
 - Pharmaceuticals/Healthcare/Life Sciences
 - To help you with the market benchmark, you are given the S&P 500 index prices for the same period.

Now, you have a good understanding of the data and the problem statement. The next segment will help you with the details of the expected tasks.

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NEXT

Problem Statement - II



