Stock Market Analysis

In this lesson, you will learn about the stock market and how you can analyze its data to extract useful insights from it.

Stock market

A stock market represents the claims of companies and individuals on the shares of public companies. The prices of these shares vary depending on various factors, including inflation, demand, and reputation.

Buying and selling stocks is a major business, and people keep trying to predict the future stock behavior to earn large paybacks on their investments.

In this data analysis project, we try to analyze the data of various stocks to obtain valuable information. This information provides insights on which stocks generate more returns.

> **Note:** There is no program in the world that can correctly predict future stock behavior. The techniques covered in this project only allow us to make an educated guess based on the previous behavior of a particular stock.

Some stock market jargon

- Closing price: The price of the stock when the market closes that day

- Daily returns: The increase or decrease in the percentage amount from the previous day

- Risk: The amount that can be lost

- Stock behavior: Whether the stock price would go up or down

Let's dive in

The stock data of the following four technology companies in Pakistan will be analyzed.

- **Systems Ltd**

- **NETSOL**

- **PTCL**

- **Avanceon**

First and foremost, we need the historical data of these companies. The data is available here and can be viewed by placing the relevant time period and company names in the search fields. A scraper will be used to pull all the data and put it into *CSV* files.

The code for the scrapper is available below, and the *chromedriver* software can be downloaded from here.

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📎  scrap.py  ⬇  ↗
```

Results?

We will try to answer the following questions after doing stock market data analysis:

1. How much did the stock price of each company change over time?

2. What were the daily returns for all the companies?

3. How are the stocks of the companies related to each other?

4. How much money do we risk losing by investing in a certain company?

5. Can we predict future stock behavior?

In the next lesson, the stocks data is explored along with some other analysis.