Here are 15 different SQL query assignments for you to practice analyzing this dataset:

1. **Retrieve all companies with a market capitalization greater than 1 trillion dollars.**
2. **Find the top 5 companies with the highest percentage change (per\_change).**
3. **Get the average price of all stocks.**
4. **List all companies where p\_e\_ratio is null (missing).**
5. **Find the total trading volume of all stocks combined.**
6. **Retrieve all companies whose symbol starts with 'A'.**
7. **Find the company with the lowest price.**
8. **Calculate the total number of companies with a negative year\_percent\_change.**
9. **Sort companies by avg\_volume in descending order and limit the result to 10 companies.**
10. **Get the company with the highest market\_cap.**
11. **Find the average p\_e\_ratio of all companies that have a non-null p\_e\_ratio.**
12. **List all companies where the change value is negative, meaning their stock price decreased.**
13. **Find the total volume of all stocks traded for companies with a p\_e\_ratio greater than 20.**
14. **Find companies that have a per\_change greater than the average per\_change of all companies.**
15. **List all companies where the volume is greater than avg\_volume.**

These queries will help you practice different SQL techniques such as filtering (WHERE), aggregation (AVG, SUM), ordering (ORDER BY), and handling NULL values. Try writing the SQL code for each! 🚀

**Basic Queries**

1. Retrieve all columns for stocks where the price is greater than $50.
2. Fetch the symbol, name, and price of stocks where the per\_change is negative.
3. Select the symbol and name of stocks with a market\_cap greater than $100 billion.
4. Display the symbol, name, and year\_percent\_change for stocks with a year\_percent\_change greater than 50%.

**Filtering and Sorting**

1. Retrieve the top 5 stocks with the highest volume traded.
2. Fetch the symbol, name, and price of stocks sorted by price in descending order.
3. Find the symbol and name of stocks where the p\_e\_ratio is NULL.
4. Retrieve the symbol, name, and per\_change of stocks where the per\_change is between 5% and 10%.

**Aggregation and Grouping**

1. Calculate the average price of all stocks in the dataset.
2. Find the total volume traded for all stocks combined.
3. Calculate the maximum market\_cap among all stocks.
4. Count the number of stocks where the year\_percent\_change is negative.

**Advanced Queries**

1. Retrieve the symbol, name, and price of stocks where the price is greater than the average price of all stocks.
2. Find the symbol, name, and per\_change of stocks where the per\_change is greater than the average per\_change of all stocks.
3. Calculate the difference between volume and avg\_volume for each stock and display the symbol, name, and the calculated difference.