**Methodology**

1. **Loading and Checking the Data**

* **Task**: Import trade data from a CSV file.
* I used Python to read the dataset and checked for any missing or incomplete entries. Key columns included account IDs and trade details.

1. **Cleaning and Preparing the Data**

* **Task**: Ensure the trade data is accurate and ready for analysis.
* I transformed the raw trade history into a structured format and removed any rows with incomplete or erroneous data.

1. **Extracting Key Details**

* **Task**: Gather essential information from the trade history, such as price, trade type, and profit.
* For each trade, I extracted important details, including:
  + Asset traded (symbol)
  + Trade direction (buy or sell)
  + Trade price
  + Realized profit or loss
* This information was organized in new columns for easier analysis.

1. **Calculating Financial Metrics**

* **Task**: Compute key metrics like ROI, total profit, and win rate.
  + **Win Rate**: Percentage of profitable trades.
  + **Total Profit**: Sum of realized profits across all trades.
  + **ROI (Return on Investment)**: Profit relative to the total amount traded.
* These metrics were calculated using basic arithmetic on the trade data.

1. **Ranking the Accounts**

* **Task**: Rank accounts based on their performance.
* I ranked accounts by their ROI in descending order and selected the top 20 with the highest ROI.

1. **Results**

* **Task**: Present the top 20 accounts and their performance metrics.
* I saved the details of these top accounts (ROI, win rate, total profit) in a CSV file for easy reference.

**Key Findings**

* **Top Performers**: I identified the 20 accounts with the highest ROI, indicating they earned the most relative to their trades.
* **Win Rate Trends**: Accounts with higher win rates tended to have greater profits.
* **Profit and Loss**: Some accounts with fewer trades were more profitable overall, suggesting that quality can outweigh quantity.
* **Total Trades**: More active accounts had more chances for profit but also faced higher risks.

**Assumptions**

* **Valid Data**: I assumed the trade data provided was accurate and complete.
* **Profit Calculation**: I relied on the realized profit field, assuming positive values indicated gains and negatives indicated losses.
* **ROI Calculation**: ROI was calculated by dividing total profit by the total amount spent on trades.
* **Risk Factors**: I didn’t calculate advanced metrics like the Sharpe Ratio due to limited data, focusing instead on basic profit metrics.