**SUBMISSION – ARONYANIL BHASA**

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**METHOD**

Created a trade performance function with the below mentioned metrics. Used the getTickerPrice auxiliary function inside this method to fetch current price of the stock.

**ASSUMPTIONS**

Since in the Nancy Pelosi test data, the amount column was ambiguous, we split it and took the higher value as price.  
Also, it did not have any size and instead of putting all sizes to 1, we created a randomized size generator with range of 1-10.

**METRICS**

* **Total Number of Trades**: The total count of executed trades.
* **Total Volume Traded**: The sum of shares traded.
* **Gross Profit**: The total profit from all profitable trades.
* **Gross Loss**: The total loss from all losing trades.
* **Net Profit**: The difference between gross profit and gross loss.
* **Win Rate**: The ratio of profitable trades to the total number of trades.
* **Average Win**: The average profit from winning trades.
* **Average Loss**: The average loss from losing trades.
* **Profit Factor**: The ratio of gross profit to gross loss.
* **Maximum Drawdown**: The maximum observed loss from a peak to a trough in the portfolio's value.
* **Sharpe Ratio**: Measures risk-adjusted return, defined as the average return earned in excess of the risk-free rate per unit of volatility or total risk.
* **Sortino Ratio**: Similar to the Sharpe ratio but focuses on downside risk by using the standard deviation of negative returns.
* **Average Trade Duration**: The average time duration of each trade.
* **Trade Expectancy**: The expected profit or loss per trade, defined as (Probability of Win \* Average Win) - (Probability of Loss \* Average Loss).
* **Trade Efficiency**: The percentage of the maximum possible profit achieved in each trade.
* **Winning Trade Duration**: The average duration of winning trades.
* **Losing Trade Duration**: The average duration of losing trades.
* **R-Value**: The ratio of average profit to average loss, often used in trading systems to evaluate the effectiveness of a trading strategy.