Exercise 2A: Build the Monthly Returns Dataset

BUSI 722: Data-Driven Finance II

Use Claude Code with the `fetch-returns` skill to build a monthly returns dataset from the Rice Data Portal.

Submission

Submit a **zip file** containing your **Jupyter notebook** (`.ipynb`) with all code, output, and charts, and at least one **screenshot** of your Claude Code session showing Claude using the `fetch-returns` skill. Use markdown cells for any written discussion.

Using Claude Code and the `fetch-returns` skill, fetch monthly returns data for all stocks from January 2021 through January 2026. The skill will query the SEP and DAILY tables, compute returns and momentum, and assign size categories.

1. Report the total number of rows, unique tickers, and date range.
2. How many rows are lost when you apply the penny-stock filter (drop rows with `close` < \$5)?
3. What fraction of stock-months have missing `momentum`? In a markdown cell, explain why momentum is missing for early observations.