Project 1: Financial Programming with Python
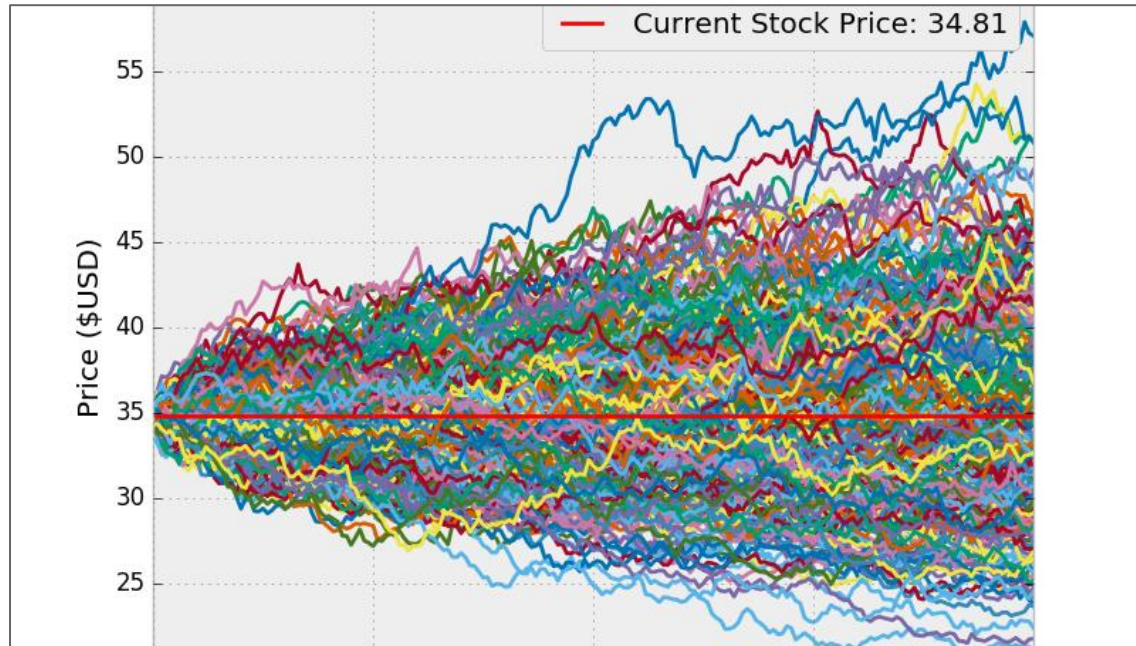
FinTech Boot Camp

Project 1

FinTech Financial Programming with Python

Example Project Ideas

Portfolio Analyzer

Prepare a tearsheet for a portfolio that includes calculations, tables, charts, financial models, Monte Carlo simulations and statistical analysis of portfolio performance for a given portfolio.
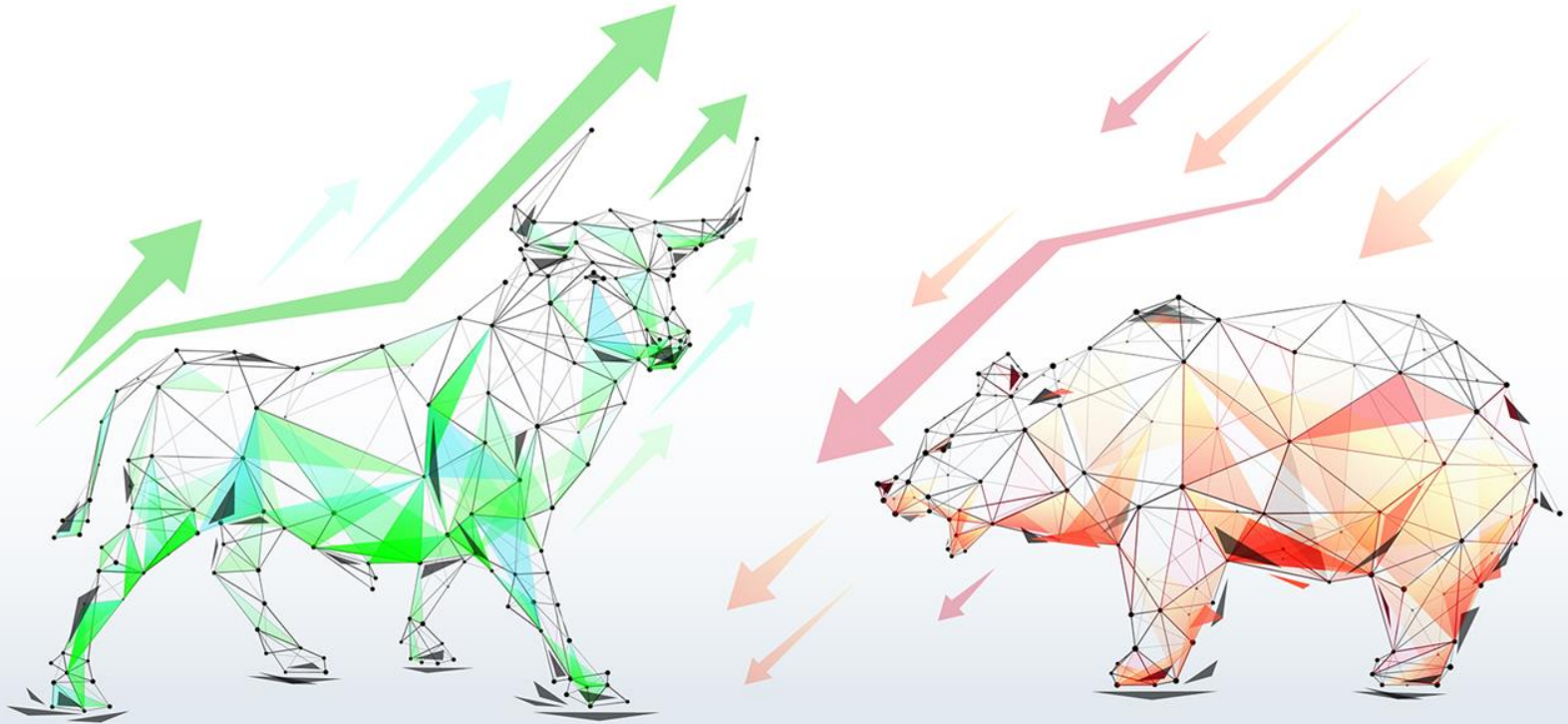
Portfolio Analyzer

Create and host a dashboard for the tearsheet with interactive visualizations and a storyboard interface.
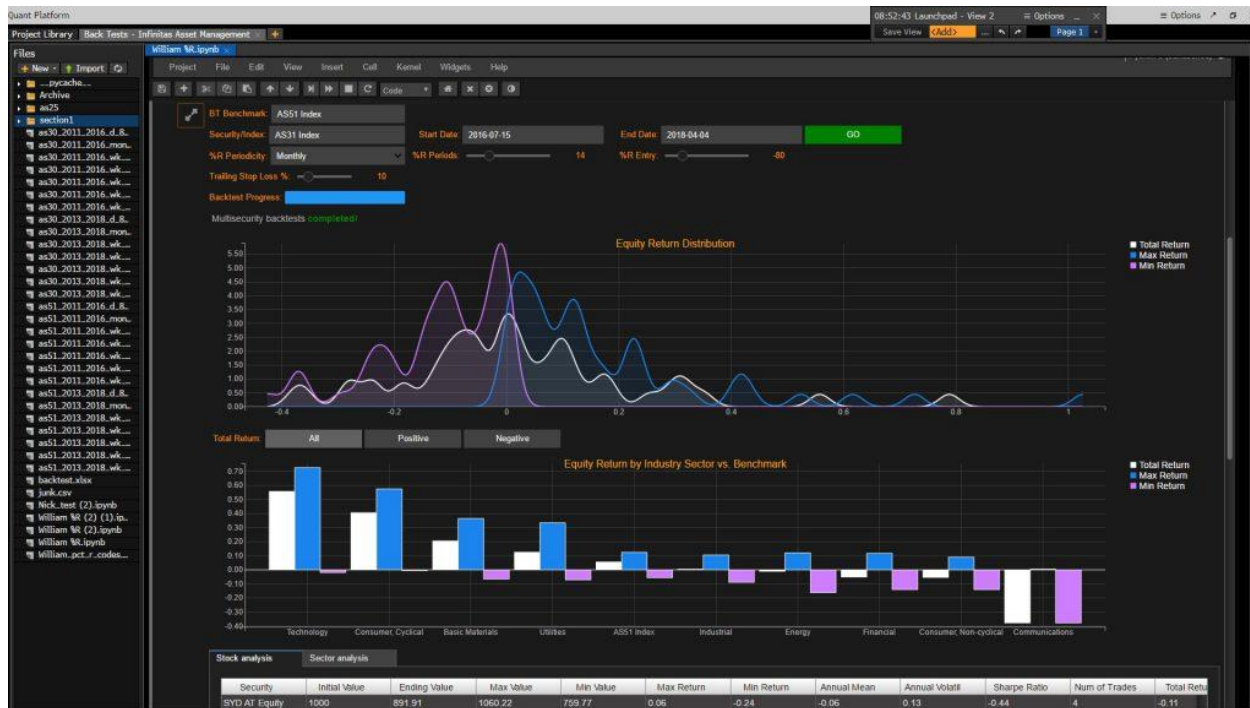
Portfolio Analyzer

What do your results suggest about the current portfolio performance?
What would you recommend customizing to improve the portfolio?

Fund my FinTech!

Fund my FinTech is a business valuation use case. Entrepreneurs would like to fund their new business with a crowdfunding platform. In order to do that, they need to prove to potential investors that their company is viable.
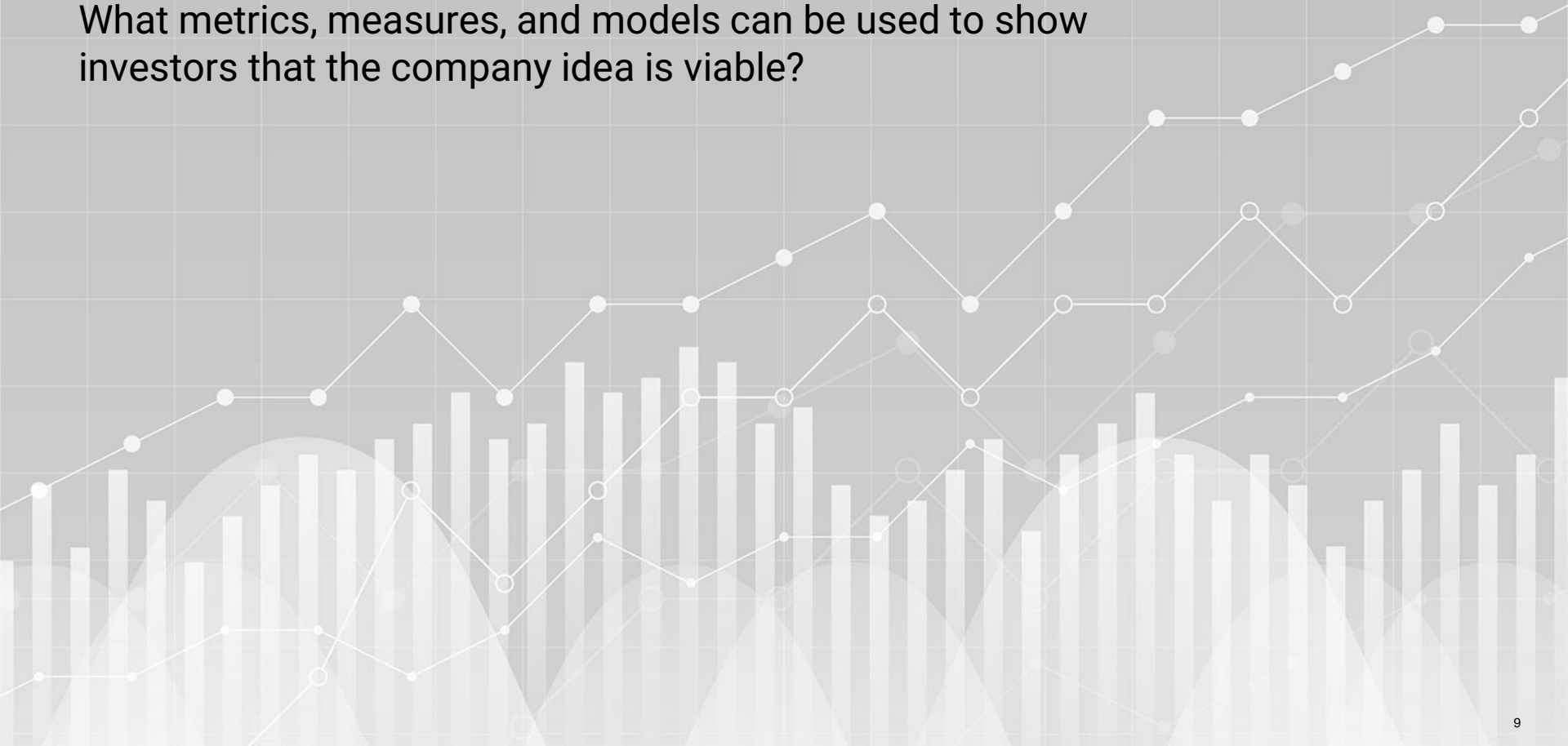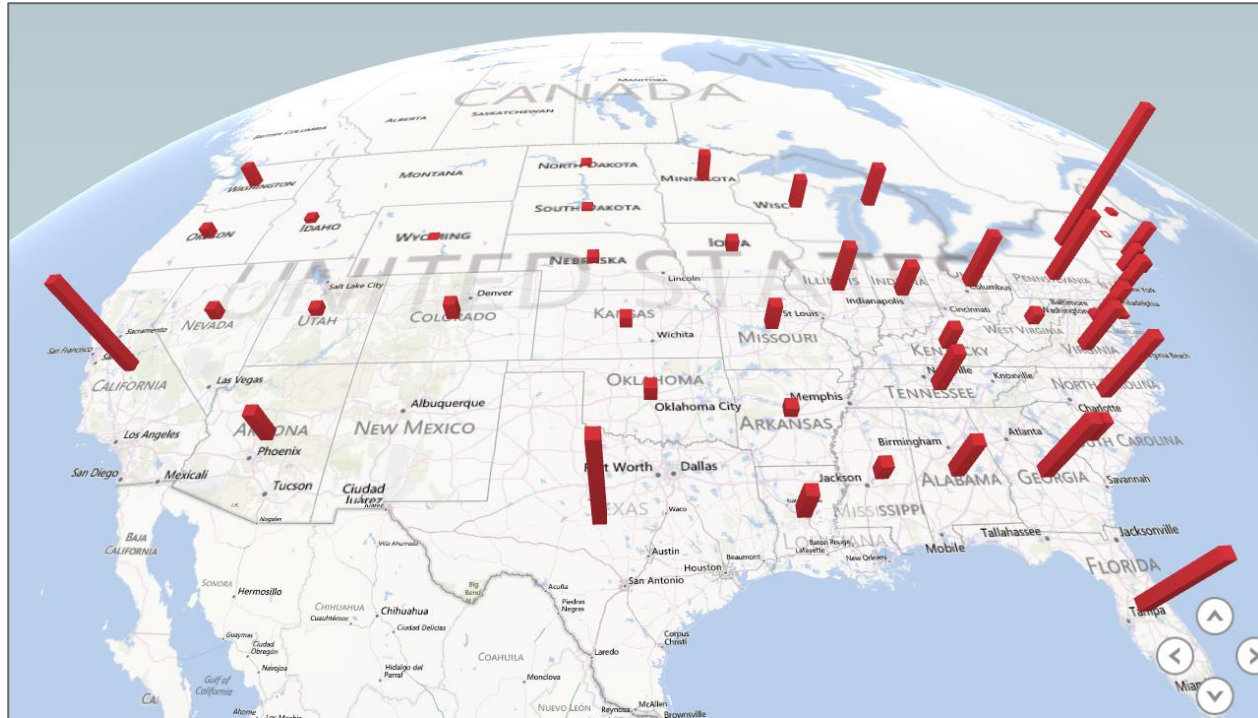
Fund my FinTech! Financial Valuation

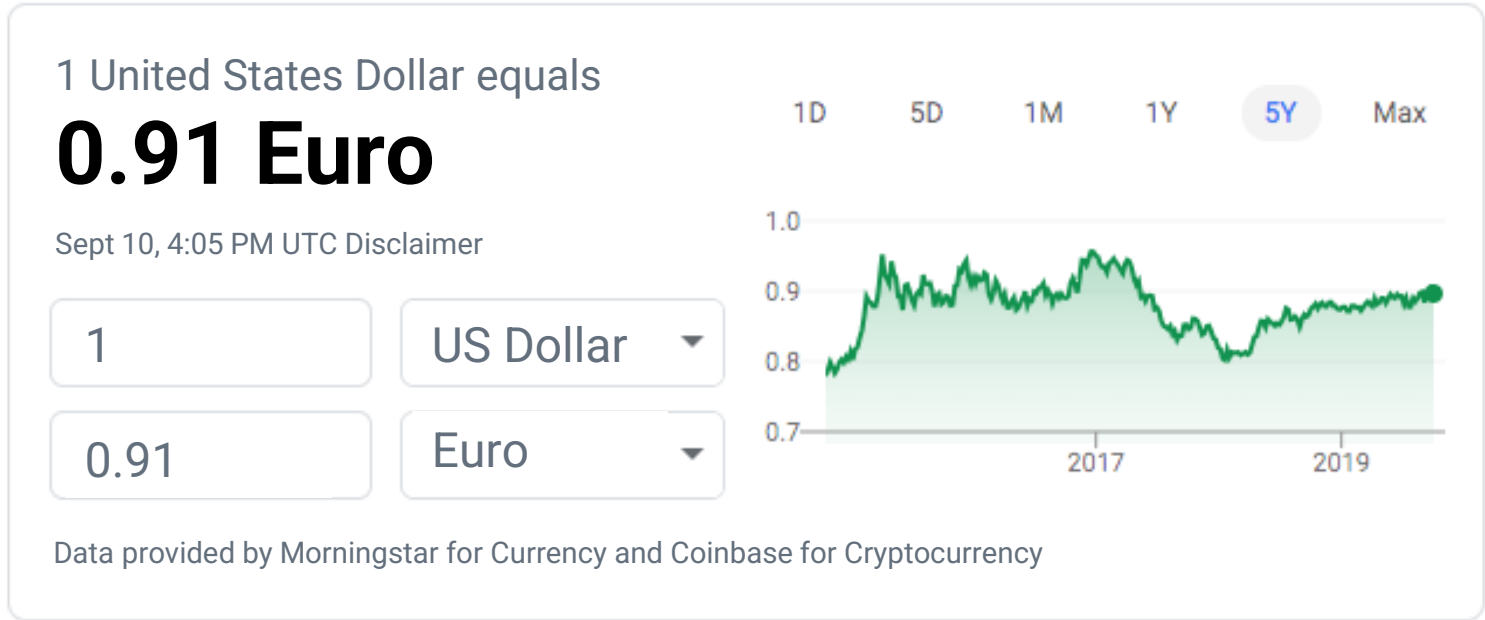What metrics, measures, and models can be used to show investors that the company idea is viable?

Fund my FinTech! Location Analysis

What analysis shows that the proposed location or country for the business will be profitable? Can you compare one location to another?
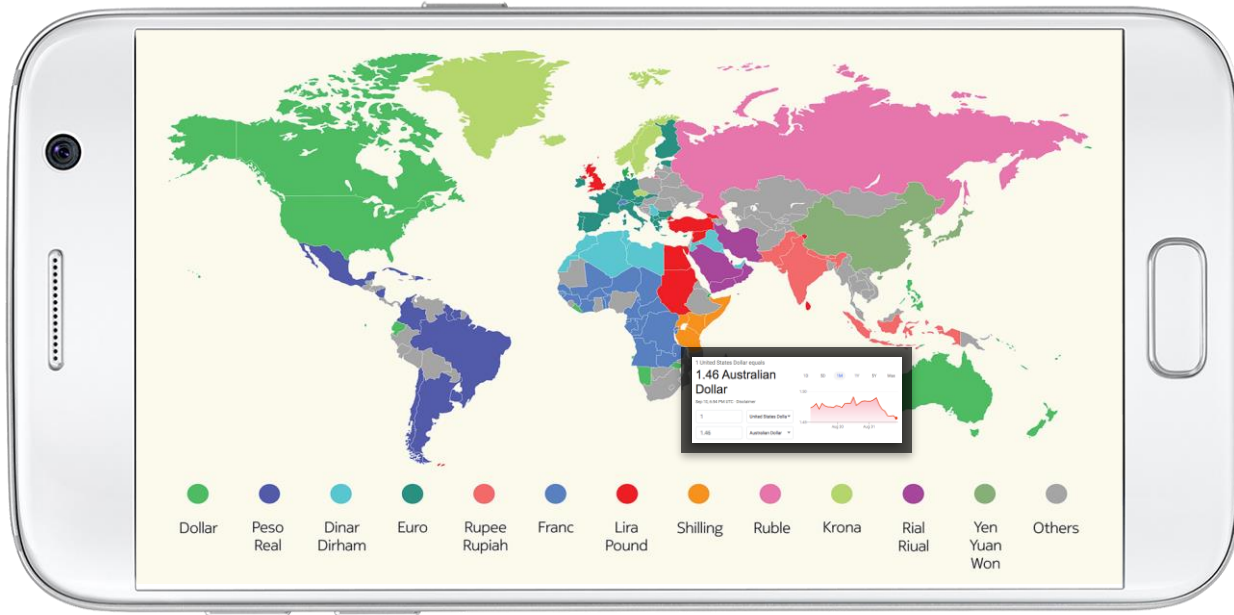
Currency Calculator

A travel agency has hired your team to build a currency calculator into their travel planner. This calculator will be hosted as an interactive dashboard application.

1 United States Dollar equals

0.91 Euro

Sept 10, 4:05 PM UTC Disclaimer

| 1 | US Dollar ▼ |

| 0.91 | Euro ▼ |

Data provided by Morningstar for Currency and Coinbase for Cryptocurrency
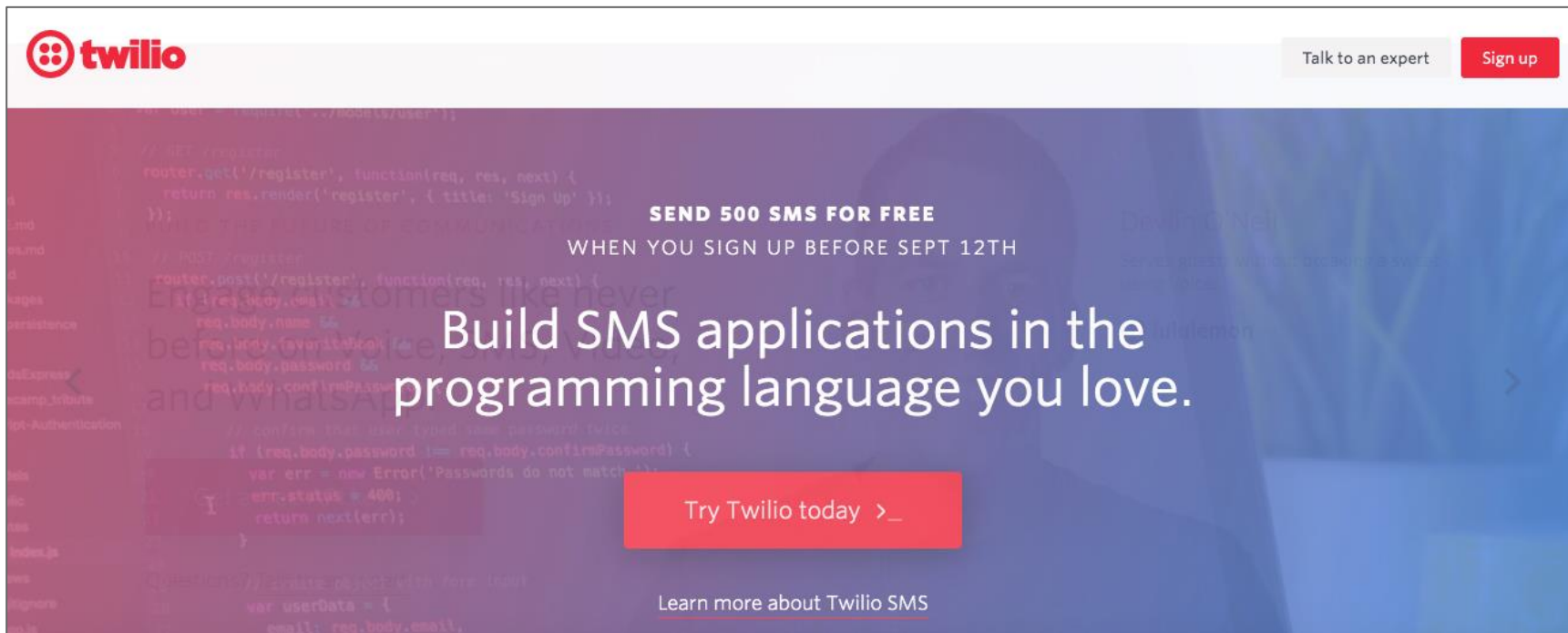
1D 5D 1M 1Y **5Y** Max

Currency Calculator

This calculator not only provides real-time conversions to/from a variety of currencies, but it also provides interactive maps that allow travelers to view and compare exchange markets for different locations

Currency Calculator

The application will also prepare a report on the selected locations and send that to a registered mobile number using tools such as [Twilio](#).

Project Requirements

Project Requirements

Your project will be graded on the following criterion:

Software Version Control

Data Collection and Preparation

Financial Programming

Documentation

Class Presentation

Teamwork

Presentation Requirements
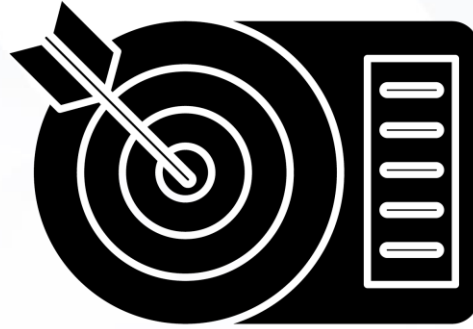
Presentation Requirements

Your team will also prepare a formal, 10-minute presentation with the following sections:

An executive summary/overview of the project and project goals

Data Collection and Preparation

The approach that your group took in achieving the project goals

The results/conclusions of the financial application or analysis

Next Steps

Appendix with links to the GitHub repository

Suggested Data Sources

Suggestions for Data Sources

Feel free to ask us (the instructional staff) for input, but our general advice is to stick to data sources that:

Are sufficiently large.

Have a consistent format.

Ideally, contain more data than needed.

Are well-documented.

Project Groups

Time to divide into teams!

Today's Focus

By the End of Today's Class:

Brainstorm possible project ideas.

Begin data research.

Write a description of the scope of your research.

By the End of Today's Class:

Create a short, 1-page project proposal that includes the following:

Project Title

Team Members

Project Description/Outline

Research Questions to Answer

Datasets to be Used

Rough Breakdown of Tasks

Questions?