



Add Week 8 Material

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 ProjectGuidelines.md 4.49 KB

# Guidelines for Project 1

This document contains guidelines, requirements, and suggestions for Project 1.

## Team Effort

First and foremost, remember that projects are a group effort, and working closely with your teammates is a requirement. In addition to learning real-world collaborative workflow, this will allow you to tackle more complex problems than working alone.

In other words, team collaboration helps you to **work smart** and **dream big**. Take advantage of it!

## Project Proposal

Before you start writing any code, your group should outline the scope and purpose of your project. This helps provide direction and prevents [scope creep](#).

Write this as a brief summary of your interests and intent, including:

- The kind of data you'd like to work with and the field you're interested in (e.g., trading, quantitative analysis).
- The kind of questions you'll be asking of that data.
- Possible sources for such data.

This constitutes your Project Proposal and Outline, which should look similar to this:

Our project is to uncover patterns in credit card fraud. We'll examine relationships between types of transactions and location; purchase prices and times of day; trends in purchases over the course of the year; and related questions, as the data admits.

## Finding Data

Once your group has written an outline, it's time to start hunting for data. You are free to use data from any source, but we recommend the following curated sources of high-quality data:

- [data.world](#)
- [Kaggle](#)
- [TSX Stock Exchange](#)
- [Open Data](#)
- [Public APIs](#)
- [Awesome-APIs List](#)
- [Medium APIs List](#)

Chances are you'll have to update your Project Outline as you explore the available data. **This is fine**—adjustments like this are part of the process! Just make sure everyone in the group is up to speed on the goals of the project as changes are made.

Make sure that your data is not too large for local analysis. **Big Data** datasets are difficult to manage locally, so consider a subset of that data, or a different dataset altogether.

## Data Cleanup & Analysis

With data in hand, it's time to tackle development and analysis. This is where the fun starts!

Inevitably, the analysis process can be broken into two broad phases: **Exploration and Cleanup** and **Analysis** proper.

As you've learned, you'll need to explore, clean, and reformat your data before you can begin to answer your research questions. We recommend keeping track of these exploration and cleanup steps in a dedicated Jupyter Notebook, both for organization's sake and to make it easier to present your work later.

Similarly, after you've massaged your data and are ready to start crunching numbers, you should keep track of your work in a Jupyter Notebook dedicated specifically to analysis.

During both phases, **don't forget to include plots!** Don't make the mistake of waiting to build figures until you're preparing your presentation. Creating them along the way can reveal insights and interesting trends in the data that you might not notice otherwise.

We recommend focusing your analysis on techniques such as aggregation, correlation, comparison, summary statistics, and financial analysis.

Finally, be sure that your projects meet the [technical requirements](#).

## Presentation

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After the data is analyzed to satisfaction, assemble a presentation in order to show the work, explain the process, and discuss conclusions.

The presentation will take the form of a slideshow, and should give classmates and instructional staff an overview of your work. PowerPoint, Keynote, and Google Slides are all acceptable for building slides.

As long as the slides meet the [presentation requirements](#), the presentation may be structured however you wish. Many students find the following format helpful [presentation guidelines](#).

## Submission

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In addition to submitting your project on Bootcamp Spot individually, please [fill out this form](#) **once per group**.

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