ECON-GA-4004: Project Guide

Revised: April 5, 2022

Overview

One key outcome of this course is for you to produce a piece of work you can use to demonstrate your computational skills. That work will come in the form of an interactive notebook. These notebooks allow you to combine code, text, and graphics in one user-friendly document. We will add them to our GitHub repository so that you can use a link to show others what you've done. You will also be able to see what your classmates have done.

The relatively loose structure in self-directed projects like this makes them more challenging than most things you do in school. We think that also makes them more interesting. They give you a chance to indulge your curiosity and show off your creativity.

We have divided the project into components to keep you on track. The intent is to make the project easier by breaking it down into a number of small, manageable sub-projects. The early steps are graded only on whether you do them: you get full points if you do them, none if you don't. We start with individual work. Partway along, we encourage you to form groups of up to three, but if you'd prefer to do this on your own, that's ok, too.

Project outline

The components of the project are

Assignment	Format	Individual/Group	Points	Due Date
Three Project Ideas	Paper (hand-written)	Individual	5	April 12
Project Proposal	Paper (professional)	Group	10	April 26
Final Project	Pluto/Jupyter notebook	Group	85	May 24

The components consist of:

- **Three project ideas.**

  Write down three project ideas. One or two sentences each is enough. Use your imagination. Be creative. Speak to others. Write down things that interest you. This will not be graded, but it will give you something to work with later on.

  Over the coming weeks, we recommend you keep your ears open for possible project ideas

- **Project proposal.**

  If you so desire, form a group of up to two people — no more — and choose a single project from those you submitted — or perhaps some other idea if you get a sudden flash of inspiration.

Flesh out the project in more detail. Describe the methods or tools that you will explore. If there will be a data aspect, please describe the data that you will be using and the questions it will be used to answer. The total length of this proposal should be no more than two pages (but no less than one).

- **Final project.**

  You should submit your **notebook** to sgl290@nyu.edu and cgc332@nyu.edu by the due date listed on the course website.

  The subject line should be: "ECON-GA-4004 Project". The file name should be your last names separated by dashes and a short title — something like `Jones-Zhang-India.ipynb`.

  Your project should include a title, a list of authors, and a short summary of what you do. You should think of the last one as an advertisement to potential readers.

Free advice

Some things to keep in mind:

- **Keep it simple.**

  Most project ideas turn out to be too big. You're generally well-advised to carve out a manageable subset of what you think you can do. There's no reason to worry about this at the idea generation stage, but as you develop your project you may find that you need to focus more narrowly on a part of it.

- **Ask for help.** We have years of experience with this kind of thing. If you're stuck, let us know and we'll try to help. You can also post questions on the class discussion board.

Grading

Projects will be graded on their overall quality. This includes, but is not restricted to, these categories:

- Quality of the idea. Is the question clearly articulated? Is it interesting? Does it have general appeal?

- Degree of difficulty. Some ideas are harder than others to implement. As in Olympic diving, you get credit for taking on a challenge.

- Professional look. Does your project look professional? Are the graphs easy to understand? Are they clearly labeled?

- Demonstration of skills. Does your project showcase what you've learned in this class? Do you use some of the theory or algorithms we've worked on? How does your application of these tools impact your final writeup?

ECON-GA-4004: Project Grade Sheet
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Overall

- Clear idea and message?

- Documentation of sources?

- Effective graphics?

- Professional appearance?

Idea

Graphics

Difficulty

Professional look