The City College of New York

CSc 30100 – Scientific Programming
Fall 2020
Erik K. Grimmelmann, Ph.D.

Final Project Description v1.0

During the final third of the semester you will work on an individual project.

The project will include three components

1. **A Zoom presentation with charts**. The presentation will be six to seven minutes long. You'll share your screen with everyone and then present. Since you'll be sharing your charts with everyone, your camera shouldn't be turned on. Please rehearse your presentation so you don't run out of time. I will cut you off if you run over and we're running behind schedule.

2. **The charts for your Zoom presentation**. The charts can be in in PowerPoint, Google Slides, Apple Keynote, PDF, or whatever other format you prefer, as long as I can read it on my Windows PC. Please submit your charts via Blackboard and label your file as lastname_firstname.xxx where xxx will depend on the format of the charts.

3. **A written report (in PDF format)**. The report will be 10 to 15 pages in length (double spaced). If you have lots of tables and/or charts, you can include them in an appendix. Please submit your written report via Blackboard and name your file as lastname_firstname.pdf. If you have code, please submit it as an Jupyter notebook named lastname_firstname.ipynb.

Schedule

1. Your Zoom presentation will be on December 1st ,3rd or 8th. Prior to November 20th I will post a schedule of when you'll be presenting. I'll be assigning you randomly to one of these three dates. I can't push these dates any later since the last day of class is Wednesday, December 9th.

2. The charts from your Zoom presentation are due by midnight on Tuesday, December 15.

3. Your written report is due by midnight on Thursday, December 17. No extensions will be granted since I've pushed this as late in the semester as I can.

Grading

The three components of your final project will be graded as follows:

1.	Zoom presentation	5% of your final grade
2.	Presentation charts	5% of your final grade
3.	Written report	20% of your final grade

Topics

The projects can be on almost any topic in Scientific Programming.

- It can be a topic that we covered (or will be covering) in class
- It can be a topic that we didn't cover (or won't be covering) in class.

- You can cover a method in Scientific Programming.
- You can apply a method (or methods) from Scientific Programming to a dataset that you find interesting.

You must clear you project topic with me in advance via email. I want to make sure that your topic isn't too easy or isn't too hard or will take too long. If I don't respond to your email in a timely fashion, please email me again.

The project must be mathematical and/or quantitative in nature. For example, if your subject is the history of a method to solve a particular problem, you'll need to go through the equations and perhaps even develop and run some code. In short, it needs to be a computer science project and not (just) a history of computer science project.

The project can't just repeat material that we've covered in class. If you choose a topic that we covered, you must go further than we went in class or develop examples that go further than we did.

If you borrow ideas or code from anyone or any online (or offline) source, make sure to credit that source.