Third Project Assignment Sheet

For my third assignment I would like to explore the use of Jupyter Notebooks in an IT/ Developer (DevOps) setting.

Jupyter Notebooks for IT Administrators

Jupyter Notebooks is based on the IPython project and was originally created for use in data science projects that involve big data sets. Jupyter notebooks are web-based pages that provide interactive code panels. It was originally designed to work with `Python`, but it supports other languages too, such as `R`, `Julia`, and `C++`. According to an article on OReilly:

> That's what Jupyter is, in a nutshell: it's a tool for collaborating. It's built for writing and sharing code and text, within the context of a web page. … Your page contains your thoughts, your code, and the results of running the code.1

Because Jupyter was designed for collaborating by its interactive code, I think it could serve the IT or Developer communities as team notebooks for sharing scripts or code chunks. It also uses markdown, which makes it easy to create clean documents that combine documentation and notes with the code.

What will I Learn?

- For this project I will need to learn the Jupyter notebook interface, and how I would submit it and still keep the code dynamic.
- This assignment would require that I obtain a data set and create a script or two that results in some observations or graphics.
  - I will be using `python`, as I am most familiar with it versus other languages like `C++` or `Julia`.
- For this assignment I plan to create at least two separate pages in one notebook. Each page will consist of:
  - What I have learned about implementing a Jupyter notebook.
  - My dataset and script with findings.
  - Note: one notebook page is not limited by length, thus it could consist of several printed pages.

Potential Grading Ruberic

Here is an example of how this assignment could be graded. Since it would combine writing and coding, it would be a mix of grading a paper and a computer program. The trick with using Jupyter will be to make the text and code flow together in a narrative.

Criteria (1-5)	Jupyter (*page1*)	Data Script (*page2*)	Total
Page format			
At least 3 pages of content			
Text correctness			
Code comments			
Code functions			
References cited			