Assigned: 01/15/2021
Due: Thurs. 01/21/2021, 11:59pm

Instructions: The project will serve to ensure you have your system set up to use a high-level language for analysis (e.g., R, MATLAB, Python).

Submission Requirements: Your answers must be computer generated (including text and diagrams). Your final document submission should include text responses to questions and description of your efforts, tables, R/Matlab/Python code used to calculate answers, and figures.

Formatting of submissions: The following methods are acceptable ways to submit your assignment:

- If you are using MATLAB consider:
  - .m file + markup, publishing matlab code → PDF
    Incorporate your answers directly into your MATLAB code (code, comments, results), publish the code creating an PDF file.
  - .mlx files + LiveScript Editor → PDF
    Answer your questions in the Matlab LiveScript editor, embedding code and results from matlab .m file
- If you are using R consider:
  - Rmd → PDF
    Use `knitr` or `rmarkdown` to collect all text responses, figures, tables, and code in the R Markdown file and process it to produce a PDF file.
  - Snw → PDF
    Use `R Sweave` to collect all text responses, figures, tables, and code in the Snw file and process it to produce a PDF.
- If you are using Python consider:
  - Jupyter notebook (.ipynb) → PDF
    Incorporate all text responses, figures, tables, and code in the jupyter notebook and process it to produce a PDF file.
  - Colab notebook (.ipynb) → PDF
    Incorporate all text responses, figures, tables, and code in the jupyter notebook and process it to produce a PDF file.

Any other packages or tools, outside those listed in the assignments, for reproducible research should be cleared by Dr. Brown before use in your submission.

Template files for this project are available in the three language choices. You may deviate from these files in terms of styling, but please keep to simple, clean, choices, e.g., *make it easy for Dr. Brown and the graders to find and grade your responses.*

Name your main submission files as *Ptest_LastName_FirstName*, create a zip-file called *Ptest_LastName_FirstName.zip* and submit on Canvas. For example, if I was using R, I would submit either:

- *Ptest_Brown_Laura.Rmd*, *Ptest_Brown_Laura.pdf*, or
- *Ptest_Brown_Laura.Snw*, *Ptest_Brown_Laura.pdf*

For Matlab, I would submit:

- *Ptest_Brown_Laura.m*, *Ptest_Brown_Laura.pdf*, or

- *Ptest_Brown_Laura.mlx*, *Ptest_Brown_Laura.pdf*

For Python, I would submit:

- *Ptest_Brown_Laura.ipynb*, *Ptest_Brown_Laura.pdf*

Questions:

1. (6 points) Setup top information (first text block of the project). The following information should be provided and styled:
   - the title, Ptest, styled as a top level heading/title or large text
   - due date, "Due: ddd MM/DD @ HH:MMpm", styled as a secondary header
   - your name, styled as a seconday header
   - The following text, using the styling as below:

     Assignment Objectives:

     Upon successful completion of this assignment, a student will be able to:
     - Add new text and code to their assignment solutions
     - Gain experience in formatting text using Markdown or LaTeX
     - Install or access to programming software to complete this assignment and subsequent assignments.

2. (5 points) In many intro to programming courses, one of the first things you learn is printing "Hello World". Use a code cell/block to print "Hello World".

   Create a variable, `v1`, containing the course number as a string, "cs4821-cs5831". Create a variable, `v2`, containing 2021 as a number. In a code cell/block print out a formatted string "Hello ¡v1¿, welcome to ¡v2¿" where the contents of the two variables are inserted into the print statements. Consider taking advantage of functions like 'fprintf'.

3. (4 points) Create a new code block/cell that has a short inline comment, "test comment"

   Create another code block/cell that has a multiple line comment,

   "This is a larger comment block

   that may span multiple lines"