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INST 326

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### Final Project Documentation

- One to four sentences explaining what your project is and what it does.
  - Our project is called the “Statistical Calculator”. It imports a dataset provided by the user. The program can visualize this dataset through the use of matplotlib package by making graphs such as bar graphs. A user can also have the program to provide basic calculations and analyze the dataset based on which methods they choose to call through the program's User Interface (UI).
- A list of files in your repository and brief descriptions of the purpose of each file
  - A CSV file that is the sample dataset used in the project
  - ReadMe (generated by default but was unused)
  - Hypothesis test python file (an iteration of the final project)
  - Unit tests for the project
  - Z tables file necessary for statistics functions
- An explanation on how to run the program from the command line.
  - First install scipy packages in order to run our code for the unit test file.
  - If the user wants to test the CSV file against our code, the user enters python hypothesis\_test.py 2.12\_Health\_systems.csv for Windows or python3 hypothesis\_test.py 2.12\_Health\_systems.csv for Macs on the command line.

- Another option users can do if they want to test our code by running against it with the unit test file. The user can enter `python hypothesis.py project_unit_test.py` for Windows or `python3 hypothesis_test.py project_unit_test.py` for Macs on the command line.
- Documentation on how to use the program / how to interpret the output of the program.
  - The output displayed is based on the user inputs and the dataset used. The program's methods describe their purpose clearly, and the user can use the UI to select which method they want the program to run. As long as the user understands the statistical concepts, they can make sense of the output.
- An annotated bibliography of all sources you used to develop the program and how you used them
  - Overview. (n.d.). Retrieved from <https://matplotlib.org/contents.html>
  - Mathematical statistics functions. (n.d.). Retrieved from <https://docs.python.org/3/library/statistics.html>