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Matlab Project – Documentation

**Required files**

* Calcuhelper.m
* Data
* Potluri\_Semester\_Project.mlapp

**Usage**

The matlab project is self-explanatory in usage. When you run the program, you should get a box with 4 inputs. The first input is the data file location. Enter it in the text box, or use the browse button to pull up a file explorer. The next input is the username. It’s pulled from the system, so if you don’t like it feel free to change it. The next 2 inputs correspond to the output file. The first of those (the third total input) is for the output folder. Either enter it in or click the browse button. The final input is the output file. Enter the name as you see fit.

Once you enter all the required information, click the calculate button. The status indicator (bottom right) will change to working shortly, so be patient. If a fatal error is encountered, the status indicator will change to ready, and the error text (bottom left) will update to highlight the problem. Fix the problem and click calculate again.

If there are no errors, there are plenty of boxes that might open. The first box will ask if you want to overwrite the output file if it exists. It’s up to you. The next thing that will happen is a figure will open. Then a dialog will open asking if you think the data (outlined in the figure) is normally distributed. Answer based on what you think, and use the graphs to help you if you’re stuck. If the data is not normally distributed, that’s all that can be done. However, if it is, the program will ask you if you want to find the probability based on the X or Z input. If you do, it will ask how many times you want to do it. The program will then ask the following questions the number of times you requested probabilities to be calculated: If you’re inputting an X or Z, value, if the values are above, below or in between the specified value(s), and ask the values (upper / lower or just the single one). After doing that, whether you chose to get probabilities based on the X and Z input, you will be asked if you want to calculate the X values based on a given probability. Once again, you will be asked how many times to do it if you choose yes, and will be asked what probability to use that many times. After doing so, the status will change to ready and the errors will be set to none with information. You can view a summary of what you did by navigating to the output file.

**Testing**

When it came to testing, I practiced defensive coding. My question every time was what am I not expecting, and added a bunch of test cases to every input I got from the user to combat what I wasn’t expecting. Later, using test cases from previous class activities, I clicked every button and made sure I got the response I was expecting.