The project is divided into 3 aspects:

* UI
* Plotting graphs
* NLG

User interface:

* The user interface is built out of widgets and for demo purposes only on jupyter notebook.
* There are 2 scroll down tabs for understanding the options between X and Y axis.
* Once both the options have been chosen it triggers the graph plotting function.
* Following the domino effect, it triggers the NLG function to infer based on the column pairs passed to the function and calculate the statistical values out of it.
* Finally the generated text is passed to the UI for output.

Plotting graphs:

* The column pairs are passed to the function for pre-processing.
* As the values are read, they are currently in numpy array format.
* They need to be pre-processed and read element wise and be converted into lists to be able to be plotted.
* One the files are pre-processed they are passed back to the UI for plotting.
* To change the file path, there is only one instance where the path has been given to the file.
* Change the file location to the new file that you want to use to plot the graphs.

NLG:

* The deep learning model is an encoder-decoder model.
* Both of them are dependent on LSTMs for functioning.
* To change the file path to a new type of dataset for the language generation, it has been declared once for training, the path can be changed at that instance.
* For the pre-processing new keywords can be added or subtracted in the script where the data preparation takes place.
* The instance for the new keywords has been mentioned in the jupyter notebook.
* Similar changes of keywords will have to be made to the infer\_graph function as well for accessing the values for custom inputs.
* Rest of the script remains as it is.
* The hyper-parameters for training on the dataset can be changed as per the developer needs.

Note:-

* All the variable declarations and the keyword searches as well as the function declarations have been mentioned in the jupyter notebook.
* Line by line code explanation for all the necessary segments have been mentioned in the notebook.