**Installation Required**

Install Python in your windows and set path variable so that the programs can be run through command prompt

**Python Packages Required**

1. Networkx - <https://networkx.org/documentation/stable/index.html>

Run the command to install networkx - pip install networkx

1. Plotly - <https://plotly.com/python/>

Run the command to install plotly - pip install plotly

1. Matplotlib - <https://matplotlib.org/stable/index.html>

Run the command to install matplotlib - pip install matplotlib

1. Numpy - <https://numpy.org/doc/>

Run the command to install numpy - pip install numpy

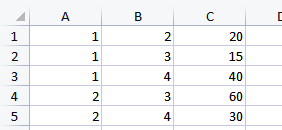
1. Seaborn - <https://seaborn.pydata.org/>

Run the command to install seaborn - pip install seaborn

**Dataset Preparation**

If anyone wants to manually prepare a dataset to test the algorithm they can creating a csv file. For unweighted dataset use the first 2 columns of the file as the edges between 2 nodes. For weighted dataset use the 3rd column for edge weight.

In the picture given below Col A and Col B for the 2 nodes and Col C for edge weight.



**Execution Instruction**

* Please ensure the packages have been installed beforehand, or run the following command to install:

pip install -r requirements.txt

* Run the main file *“main.py”* along with the .csv dataset file and an output .txt file where the results will be stored.

Say the dataset filename is *“Dataset.csv”* and the desired output file is *“Output.txt”* one should run the following command in command prompt

*python main.py Dataset.csv Output.txt*

* To find the Pearson Correlation coefficient for the prepared Harry Potter Dataset one should run the following command in command prompt

python check\_pearson.py