REQUIREMENTS

- The provided notebook was run on google colab platform thus it is recommended to run this notebook on this platform for convenience.
- However, the notebook can be run locally provided that the following packages are installed
    1. Pandas
    2. Numpy
    3. Matplotlib
    4. Seaborn
    5. Sklearn
    6. XGBoost

APPROACH

- To accurately predict the number of files received per week, it was necessary for the dataset to have the feature with weeks of the year. This was done by parsing the datetime object of the dataset to get weeks of the year. A power model by its name XGBoost was used to achieve this forecasting.
- The incorporation of seasonal patterns in the predictions was done by parsing the datetime object to get the quarters of the year.
- The calculation of average time taken by consultants at each branch to close files was calculated by getting the difference between the columns with time in values and file close time values.
- The robustness and scalability of the model was fulfilled by performing cross validation thus the model is expected to be insensitive to changes in the size of the datasets.