

## 1. [Introduction]

The underlying model predicts the time required to eat meal based on three features i.e., category of meal (Breakfast, lunch and dinner). The given prediction is done using poisson regression.

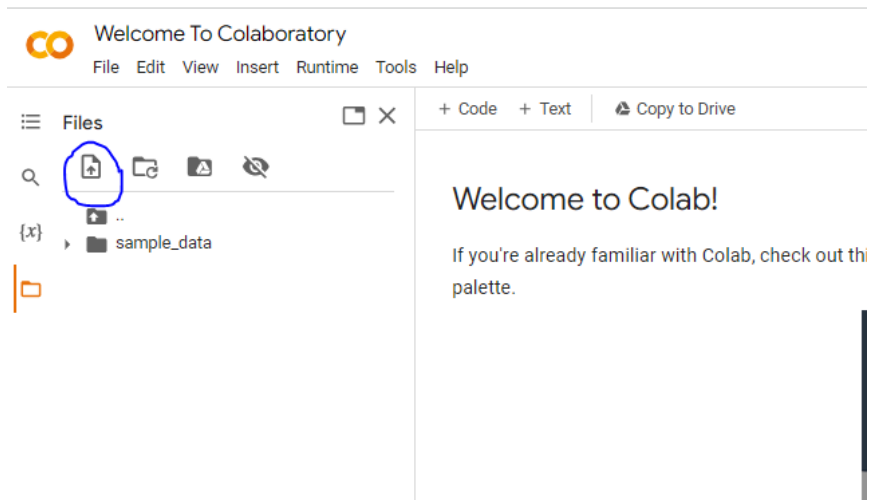
## 2. [Installation]

All the required libraries are imported in the ipynb file.

**Note:** If another IDE is used then please install the libraries.  
pip install scikit-learn pandas numpy

## 3. [Usage]

- Open <https://colab.google/>
- Click on the open collab button.
- Click on upload and then click on browse.
- Select the 'Q1.ipynb' file and upload it.
- Click on 'upload to session storage'. Please do not upload it in any other folder.



- Select the 'mess\_data.csv" file and upload it.
- Run all the cells in the order.

## 4. [Data]

The collected dataset have time for meal in Date and time format.

- Convert the Total time value into integer values. Integer values can be in minutes or seconds.
- I have converted them to seconds instead of minutes for a better accuracy of the prediction model.
- Days are numbered from as monday = 1 to sunday = 7
- Category represents 1 = Breakfast; 2 = Lunch; and 3 = Dinner
- Holiday column: 0 = No and 1 = Yes

## **5. [Results]**

Poisson Regression Metrics: MAE train data: 72.52640467490252 seconds

Linear Regression Metrics: MAE test data: 73.61158226726073 seconds

The value of mean\_absolute\_error for the model created is almost the same as the linear regression model.