

## TASK 1:

*A restaurant orders related data is presented in google sheet as a spread .The number of orders every day is observed for 250 days and it is expressed as a random variable  $X$  and the probability associated to it is calculated. further Poisson Distribution is applied and tested with the actual probability.*

*The Sample data is given here:*

*[https://docs.google.com/spreadsheets/d/1gIGu4VbZttxPnq47ZP1rnSo9zDmJEhHwF\\_Pi5GTDntI/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1gIGu4VbZttxPnq47ZP1rnSo9zDmJEhHwF_Pi5GTDntI/edit?usp=sharing)*

*The calculations related to it is presented here:*

*[https://docs.google.com/document/d/1k5vgTctzXp1oQYtMqof79wCkK\\_7i\\_i2sByXA0AdOn9E/edit?usp=sharing](https://docs.google.com/document/d/1k5vgTctzXp1oQYtMqof79wCkK_7i_i2sByXA0AdOn9E/edit?usp=sharing)*

## TASK 2:

*A data set of number of Polio cases across countries is shown and it is checked whether it follows the NORMAL DISTRIBUTION.*

*The dataset*

*:<https://docs.google.com/spreadsheets/d/1WwRbcM0Y15B2hPrYK69kgniwf7L-cevX6Jboyja77c4/edit?usp=sharing>*

*The*

*calculations:<https://docs.google.com/document/d/1kQUNRcxLIHII54Jow1O1pw0jyzrDS5zwVISfM3VYUvo/edit?usp=sharing>*

*It was found that this sample dataset doesnot follow normal distribution as predicted.*

### **TASK 3:**

*A data of restaurant's daily no of orders which was previously used in assignment 4 is presented here and it is assumed to have poisson distribution . Therefore the esitamated parameter's calculations and the MM ,ML estimations reagarding it is presented in the below link.*

The link to google collab notebook :

[https://colab.research.google.com/drive/1QI9ysX3oou3bUdZjAIEB-JEuT2F6\\_761?usp=sharing](https://colab.research.google.com/drive/1QI9ysX3oou3bUdZjAIEB-JEuT2F6_761?usp=sharing)