**Problem Statement:**

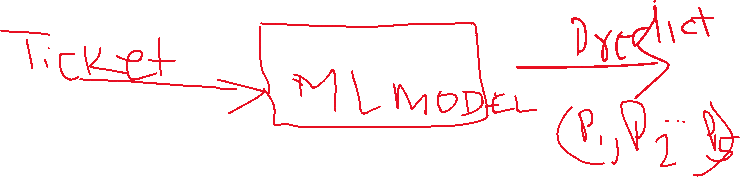
**Support Ticket Classification using NLP:**

A lot of human or customer care executive spent unnecessarily every day just to re-prioritize the incoming support tickets to their deserving priority, because everyone just creates them either as Priority-1 or Priority-2 etc.

This issue can be solved to some extent if we had a predictive model which can classify the incoming tickets into P1/P2/P3 ,etc. based on the text contained in them.

Why support ticket is important: <https://unogeeks.com/servicenow-p1-p2-p3-p4/>

Hisotrical Data : dataset with priorties



**How we are going to work in next 4 weeks:**



**Tools**: Jupyter Notebook (Local- vscode or Google colab), Github, your personal laptop

**Data** : I will provide dataset

**Steps to perform for next 4 weeks:**

The flow of the case study is as below:

1. Reading the data in python- pandas and numpy
2. Defining the problem statement -- ?
3. Identifying the Target variable
4. Looking at the distribution of Target variable
5. Basic Data exploration – EDA , build some charts etc.
6. Feature Engineering
7. Visual Exploratory Data Analysis for data distribution (Histogram and Barcharts)s
8. Rejecting useless columns
9. Feature Selection based on data distribution
10. Outlier treatment
11. Missing Values treatment
12. Visual correlation analysis
13. Statistical correlation analysis (Feature Selection)
14. Converting data to numeric for ML
15. Sampling and K-fold cross validation
16. Trying multiple Regression algorithms
17. Selecting the best Model
18. Deploying the best model in production