Centre for ARTIFICIAL INTELLLIGENCE  
TKM COLLEGE OF ENGINEERING, Kollam

Semester II

Advanced Computing Lab

**EXPERIMENT INSTRUCTION SET 3 (03.06.21)**

**Complete before 03.06.21 | 9 PM**

Add following files NBa, NBb, NBc in a New folder named as **Program 3: Naïve Bayes,** inside ADC Lab folder of your **Google Drive.**

1. Perform Classification using Naive Bayes classifier (Gaussian, Multinomial, Bernoulli) on scikit dataset and kaggle dataset (Name following files as NBa, NBb, NBc)
   1. Use Load iris standard dataset, predict species for 3.5,3.5,3.5,3.5 using GaussianNB, MultinomialNB, BernoulliNB (in a single program)
   2. Create a notepad/word file, study & add **your own** notes (along eqn) (4-5 lines for each NB). Observe and add **your comment** for difference in output at Qn 1.a.

Download **train.csv and test.csv** from https://www.kaggle.com/arkaides/airline-passengers

* 1. Use columns Age, Flight Distance, Inflight wifi service, Ease of Online booking, Food and drink, Seat comfort, Leg room service, Cleanliness, Departure Delay in Minutes, Arrival Delay in Minutes to **TRAIN train.csv** using GaussianNB, MultinomialNB, BernoulliNB**.**

Instead of splitting like in previous class, use all ROWS in **train.csv** for **train\_x and train\_y** & all ROWS in **test.csv** for **test\_x and tesy\_y.** Print ACCURACY using GaussianNB, MultinomialNB, BernoulliNB.

Create you **GIT repository** and add:

1. Add the above files in a **folder PROGRAM 3**.
2. In folder **PROGRAM 2,** add solutions you shared for Tutorial Question Set 1 & 2. (Better with same question numbers, in two folders)