CSAL4243 – Assignment 1

You can use any programming language to perform the experiments. There is no restriction of using only Python or Matlab or C/C++ for the task(s).

Task 1:
The Naïve Bays Classifier (NBC) has been discussed with following example dataset.

Feature x	2	4	1	2	4	2	1	2	2	3	3	1	2	4	2
Feature y	3	1	3	4	2	1	2	3	2	3	2	2	1	3	2
Feature z	2	4	2	3	4	3	4	3	4	3	1	1	4	4	4
Outcome	A	B	A	A	B	C	A	B	A	C	A	B	A	C	A

It is expected that you will copy these data into TXT or CSV files and save them for further experiments.

You are required to write program of the NBC and test it with following data:

Test #	x	y	z	Outcome
1	2	2	3	?
2	1	2	2	?
3	3	1	3	?

Marking Scheme:
  1. Read and load data into respective variables.   [3]
  2. Design functions to Calculate Probabilities and Likelihoods.   [3]
  3. Ask user for input data and predict outcome.   [3]
  4. Design a GUI for the program.   [1]
                                                         Total: [10]