**Pattern Recognition HW #1 (09/03/2022)**

**Classify the cancer data using *k*-NN**

**Requirements:**

1. Write a Matlab/ Phyton script to evalaute *k*-NN classifier performance where *k*=1,2…,5 and test data ratio =25%.
2. Compare distance metrics, Euclidean to Mahalanobis.
3. Plot accuracy versus *k* for both distance metrics, and then show the confusion matrix, sensitivity & specificity values at the best accuracy score.
4. Prepare a PDF file containing the script, graphs and scores (max 3 pages). Submit to e-kampus.

Hint: the attached data.xls will be imported or use table read function read. The 1st column is the class label.