

## Assignment

### Breast Cancer Detection

In this assignment, we shall try to predict breast cancer using **Breast Cancer Wisconsin (Diagnostic) Data Set**. A detailed description about the dataset can be found in the [link](#). You need to complete the following tasks in this assignment.

1. Write a function that loads the data and creates a Pandas DataFrame and returns the DataFrame. [5]
2. Write a function that prints the number of features in the dataset. [5]
3. Using the DataFrame produced in Task 1, write a function that counts the number of samples in each class and prints them. [5]
4. Using the DataFrame produced in Task 1, write a function that randomly splits the dataset into training and test set and returns them. [5]
5. Using the training set produced in Task 4, train three different classifiers. [5\*3=15]
6. Using the test set produced in Task 4, predict the class for each test sample. [5]
7. Measure the accuracy of each classifier and compare them. [10]