

# 1 Assignment 1

In this assignment you will be practicing your python and numpy skills by working on 2 different classification algorithms k Nearest Neighbors and Logistic Regression.

## 1.1 Getting Started

Go through the getting\_started.pdf to know how to set up python and jupyter notebook in your pcs. We will needed the following python packages in this assignment: numpy, matplotlib and sklearn.

Directly installing python using Anaconda as explained in getting\_started.pdf will install these packages too.

Extract assignment1.zip to get the assignment files. Once you have the assignment notebooks in your system, open jupyter notebook and browse to the directory containing the notebooks.

## 1.2 Q1. k Nearest Neighbors for Image classification (5 marks)

The jupyter notebook will walk you through the details of implementation.

## 1.3 Q2. Logistic Regression for breast cancer prediction (5 marks)

The jupyter notebook will walk you through the details of implementation.

## 1.4 Important Note:

You will required to implement certain functions in the notebook. Each function that you will be asked to implement will contain a statement 'raise NotImplementedError()'. Please remove this line from the function and then start your implementation.