Assignment 3

Foundations of Machine Learning (**CS564**)

Date:- 08-11-2023   **Deadline:-20-11-2023**

Instructions:

1. Coding must be done using python

2. All the assignments should be completed and uploaded before the deadline.

3. Markings will be based on the correctness and soundness of the outputs.
Marks will be deducted in case of plagiarism.

4. Proper indentation and appropriate comments are mandatory.

5. You should zip all the required files and name the zip file as *roll_no*.**zip**, eg.
1501cs11.zip. 6. Upload your assignment (**the zip file**) in the following link:

https://forms.gle/NcEGfzjngTnyLvhR6

1. The objective of this assignment is to develop a Support Vector Machine (SVM)
classifier for cancer classification. For dataset you can import cancer data from
Sklearn library or download
from(http://archive.ics.uci.edu/ml/datasets/breast+cancer+wisconsin+%28diagnostic%29)

   Steps to follow:

   a. Data Preprocessing
   b. Feature Selection (if necessary, you can use any feature selection
      techniques)
   c. SVM Model Training
   d. Model Evaluation (accuracy, precision, recall, and F1-score)