Submission Format: Please Submit one **ZIP FILE** that contains:

* **\*.py** files with necessary code and
* **\*.docx** file with IDs and students' names, results and explanations.

The name of the ZIP FILE should be lab<#>\_<IDnumber1>\_<IDnumber2>, where # is the lab number.

**Lab 6: K-Nearest Neighbor KNN algorithm**

**Tasks to do:**

1. Open the file Lec\_KNN.ppt and read description of KNN algorithm.
2. Open the file lab6\_ex1.py.
3. Load the data from Iris Database.
4. Choose 20 points from each group (see species array) as a Training Dataset.
5. For a new point (test\_row) find the nearest point from the Training Dataset.

**Independent work**

1. Compose the Testing Dataset from the points not chosen for the Training Dataset.
2. Apply KNN algorithm for K=1 to the Testing Dataset. Show results in a visual way.
3. Implement KNN algorithm to divide Testing Dataset into two groups for arbitrary K.