

**UCT31021 - PRACTICAL FOR ARTIFICIAL INTELLIGENCE**  
**DEPARTMENT OF ICT**  
**FACULTY OF TECHNOLOGY**  
**SOUTH EASTERN UNIVERSITY OF SRILANKA**

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**Lab sheet:** 09

**Date:** 22-05-2025

**Title:** Basic Machine Learning Model

**Aims:**

- Work with Python
- Basic Machine Learning Handling

**Understanding:**

Training set and testing set:

Machine learning is about learning some properties of a data set and applying them to new data. This is why a common practice in machine learning to evaluate an algorithm is to split the data at hand into two sets, one that we call the training set on which we learn data properties and one that we call the testing set on which we test these properties.

scikit-learn comes with a few standard datasets, for instance the iris and digits datasets for classification and the boston house prices dataset for regression.

A dataset is a dictionary-like object that holds all the data and some metadata about the data. This data is stored in the .data member, which is a (n\_samples, n\_features) array. In the case of supervised problem, one or more response variables are stored in the .target member.

**Task-01:**

1. Loading an example dataset
2. Print Output
3. Learn & Predicting
4. Model persistence