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| **COMPUTING SUBJECT:** | Unsupervised Learning |
| **TYPE:** | Mandatory project |
| **IDENTIFICATION:** | Mandatory No. 3 |
| **COPYRIGHT:** | *Michael Claudius* |
| **LEVEL:** | Medium |
| **TIME CONSUMPTION:** | 3-8 hours |
| **EXTENT:** | 30-40 cells with 300 lines codes mainly auto-generated |
| **OBJECTIVE:** | Unsupervised Learning OR Support Vector Machines |
| **PRECONDITIONS:** | |
| **COMMANDS:** | |

**MANDATORY PROJECT: Mall Customer Case or Iris Case**

**The Mission**
You are to gain knowledge on machine learning by training clustering algorithms on a specific data set.

1. Theoretical part, explaining the concepts of the chosen method.
2. Practical part, training and evaluating the program on a specific data set

*You can decide to work in small groups of 2-5 students.*
*ButSingle student is also accepted.*

**Purpose**
The purpose of this project is to explore:
Unsupervised Learning OR Support Vector Machine

**Useful links for ML**
When surfing on the net it is easy to find many descriptions more or less useful, and in more or less updated versions. I have made a preliminary collection on the home page.

**Hand in**
It is important to understand both the theory –if stated-, and practical part therefore both parts are handed in as one .zip file not later than 23.00 20th April 2022. For each group only one student need to upload group work. Remember to state the names of the group-members on the front page

**Domain description**
First you choose between:

**A. Unsupervised Learning (strongly recommended)**
Unsupervised Learning Questions Chapter 9
Unsupervised Learning Mall Customer Exercise
Customer Dataset on Kaggle

**B. Support Vector Machine (Challenge as no lessons on this topic ☺)**
SVM Iris Exercise
SVM Iris Program

Then you check up your (former) solution, if any, and use two to eight hours to adjust the text, develop programs and then upload your document and program code in a .zip file.