ELL-409 (Machine Intelligence and Learning)

Assignment 2

11 March 2020

General Instructions:

- This assignment is to be done on an individual basis.
- The weightage of the assignment to the course will be decided later.
- Use of Python/MATLAB for implementation is encouraged. Use of neural network libraries like keras, sklearn, tensorflow are strictly not allowed. Please convert the jupyter notebook file to python file before submission.
- While coding, take care of comments and proper indentation.
- Please feel free to discuss the assignment with your classmates but the code and report must be your own. Plagiarism will be heavily penalized.
- Name the program file as `<user_id>_<assign no>.py / <user_id>_<assign no>.m`. Name the report as `<user_id>_<assign no>.pdf`.
- Create a project folder namely '`<user_id>_<assign no>`'. This folder should contain the report and program file. Compress this folder in **zip** format and upload it to moodle for final submission.
- All the file names should be as indicated in the assignment, otherwise submissions will not be accepted because the submission will be checked for **plagiarism**.
- The submission deadline is **March 11th, 23:59 (IST)**. Late submissions will **not** be accepted.
- The schedule for demos/vivas will be announced around submission date, via piazza.

Description:

Please fill this form to select 3 topics for your assignment.

- You will have to implement 3 topics chosen by you for assignment 2. These topics are listed in the above form.
- The datasets will have to be chosen by you for all three topics and the datasets need not be the same for all 3 topics.
- Try to fill this form as soon as possible because the number of available options will keep on decreasing as the forms are being submitted.
- Find the links for references for some of these topics in this sheet.
- Please ensure that no two people select the same set of all 3 topics deliberately. If found, we will assign different topics to one of the conflicting parties.

Report:

- You need to submit a report stating all the procedures and results along with the code in python / MATLAB files.
- Please report how the variant is different from the basic concept of clustering/regression.
- Please also discuss the advantages and disadvantages of the variant used. It would be better if these properties can be shown using appropriate data-sets.