BLG 454E HW1

Deadline: 13/11/2024 23:59

Homework Policy

- Use comments whenever necessary to explain your code.
- You will use Python as the programming language.
- You will be given an ipynb file that requires completing the necessary sections.
- You can not import additional libraries; only use built-in functions and imported libraries by us.
- We encourage you to use Google Colab and not deal with any Python environment setup.
- You will submit two files: the notebook file you completed and the report of your work.
- For any comments or questions, please contact your TAst;
    - saritas21@itu.edu.tr
    - erzurumluoglu18@itu.edu.tr

Homework Description

- As your first assignment, we prepared this homework that covers the implementation and application of various ML methods.
- There are two sections in the given ipynb file. In the first one, you will be asked to code your own ML methods and tools. For the second section, you will use a variety of ML methods using the scikit-learn library (we already selected and imported the necessary methods)
- The descriptions are written in the ipynb file.
- After that, we want you to prepare a report whose details are below.

Report Content:

1. Explain briefly the general ML topics given below (3+2 points);
    a. ML learning approaches (supervised, unsupervised, and reinforcement).
    b. The training and testing phases in supervised learning
2. Provide a theoretical background of the methods you used in the coding part (10 points).
3. Comment on the results obtained in detail (10 points).