## The List of Database for the assignment

- House price database (https://www.kaggle.com/c/house-prices-advanced-regressiontechniques/data)
- 2. Sports Article dataset --- class label as objective or subjective, https://archive.ics.uci.edu/ml/datasets/Sports+articles+for+objectivity+analysis
- 3. Iris dataset with three class labels -- -- Iris Setosa, -- Iris Versicolour, -- Iris Virginica https://archive.ics.uci.edu/ml/datasets/Iris
- 4. Car evaluation models, four classes lunacc, acc, good, vgood --- discrete attributes https://archive.ics.uci.edu/ml/datasets/Car+Evaluation
- 5. Heat disease database -- https://archive.ics.uci.edu/ml/datasets/Heart+Disease
- 6. Breast cancer dataset, <a href="https://archive.ics.uci.edu/ml/machine-learning-databases/breast-cancer-wisconsin/">https://archive.ics.uci.edu/ml/machine-learning-databases/breast-cancer-wisconsin/</a>
- 7. Bank marketing dataset -- Class label, yes or no, https://archive.ics.uci.edu/ml/datasets/Bank+Marketing
- 8. Abalone predicting age of abalone -- <a href="https://archive.ics.uci.edu/ml/datasets/Abalone">https://archive.ics.uci.edu/ml/datasets/Abalone</a>
- 9. Human activity detection –( 6 class labels) -- <a href="https://archive.ics.uci.edu/ml/datasets/Abalone">https://archive.ics.uci.edu/ml/datasets/Abalone</a>

## List of questions for the assignment

- 1. Develop a multi-variate linear regression model for predicting the price of a house (Dataset No. 1).
- 2. Implement Bayesian classifier for Sports article dataset (2)
- 3. Implement K-nearest neighbour classification for iris dataset (3)
- 4. Implement ANN algorithm with single neuron for iris dataset. (3)
- 5. Implement Bayesian classifier for Iris dataset (3)
- 6. Implement Decision tree for car evaluation model (4)
- 7. Develop a prediction model for heart disease dataset using multi-variate linear regression (5).
- 8. Develop an ANN classification model for heart disease dataset (5).
- 9. Develop a classification model for breast cancer database using any classification algorithms (6).
- 10. Implement decision tree classifier for Bank marketing dataset (7).
- 11. Develop a multi-variate linear regression model for predicting the age of an abalone (8).
- 12. Implement a machine learning model for Human activity detection (9)
- 13. Develop a multi-variate linear regression model for predicting the price of a house (1).
- 14. Implement Bayesian classifier for Sports article dataset (2)
- 15. Implement K-nearest neighbour classification for iris dataset (3)
- 16. Implement ANN algorithm with single neuron for iris dataset. (3)
- 17. Implement Bayesian classifier for Iris dataset (3)
- 18. Implement Decision tree for car evaluation model (4)
- 19. Develop a prediction model for heart disease dataset using multi-variate linear regression (5).
- 20. Develop an ANN classification model for heart disease dataset (5).

- 21. Develop a classification model for breast cancer database using any classification algorithms (6).
- 22. Implement decision tree classifier for Bank marketing dataset (7).
- 23. Develop a multi-variate linear regression model for predicting the age of an abalone (8).
- 24. Implement a machine learning model for Human activity detection (9)
- 25. Develop a multi-variate linear regression model for predicting the price of a house (1).
- 26. Implement Bayesian classifier for Sports article dataset (2)
- 27. Implement K-nearest neighbour classification for iris dataset (3)
- 28. Implement ANN algorithm with single neuron for iris dataset. (3)
- 29. Implement Bayesian classifier for Iris dataset (3)
- 30. Implement Decision tree for car evaluation model (4)
- 31. Develop a prediction model for heart disease dataset using multi-variate linear regression (5).
- 32. Develop an ANN classification model for heart disease dataset (5).
- 33. Develop a classification model for breast cancer database using any classification algorithms (6).
- 34. Implement decision tree classifier for Bank marketing dataset (7).
- 35. Develop a multi-variate linear regression model for predicting the age of an abalone (8).
- 36. Implement a machine learning model for Human activity detection (9)

## **Note**

- 1. The objective of this assignment is that students learn to,
  - a. Download the dataset and understand how to use it for Machine learning projects.
  - b. Understand the structure, the attributes, data types, format provided in the dataset.
  - c. Develop Simple machine learning algorithm for the given dataset on their own in any of the familiar programming language
- 2. Student will submit a report (not exceeding 2-3 pages) containing, the problem definition, information about the dataset, the algorithm used, program for the algorithm and the results.
- 3. Student will also demonstrate the working of the program.
- 4. Learning is important, accuracy is not an issue.
- 5. First deadline is 11<sup>th</sup> October (to be Evaluated out of 5 marks)
- 6. Second deadline is 17<sup>th</sup> October (to be Evaluated out of 3 marks)
- 7. No more considerations after the 2<sup>nd</sup> deadline.