Subject Code	Subject Name	Credits
26CS155	AI & MACHINE LEARNING LAB	2

Objectives:

The objective of the Artificial Intelligence and Machine Learning Laboratory is to provide students with practical exposure to core AI and ML concepts by implementing algorithms and models using programming tools and real-world datasets. The lab aims to bridge the gap between theoretical knowledge and practical application in intelligent systems.

1. Write a Python program to perform data normalization using MinMaxScaler.
2. Write a Python program to perform standardization using StandardScaler.
3. Write a Python program to implement Decision Tree Classifier for predicting whether a customer will buy a product
4. Write a Python program to implement Logistic Regression for classifying whether a student will pass or fail.
5. Write a Python program to implement K-Nearest Neighbors (KNN) classification.
6. Write a Python program to implement Simple Linear Regression to predict house prices based on size.
7. Write a Python program to implement Multiple Linear Regression using two input variables.
8. Write a Python program to perform Polynomial Regression.
9. Write a Python program to perform K-Means clustering on a dataset.
10. Write a Python program to implement Hierarchical Clustering.
11. Write a Python program to visualize clusters using matplotlib.
12. Write a Python program to evaluate classification using confusion matrix and accuracy score.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements