MES Wadia College of Engineering Pune-01

Department of Computer Engineering

Name of Student:	**Class:**
Semester/Year:	**Roll No:**
Date of Performance:	**Date of Submission:**
Examined By:	**Experiment No: Part A-04**

PART: A) ASSIGNMENT NO: 04

Title: Data Analytics-I

Create a Linear Regression Model using Python/R to predict home prices using Boston Housing Dataset (https://www.kaggle.com/c/boston-housing). The Boston Housing dataset contains information about various houses in Boston through different parameters. There are 506 samples and 14 feature variables in this dataset.

The objective is to predict the value of prices of the house using the given features.

OBJECTIVES:

- Students should be able to data analysis using liner regression using Python for any open source dataset

PREREQUISITE:

- Basic of Python Programming
- Concept of Regression.

APPRATUS:

- Programming Language: Python.
- Dataset: Boston Housing Dataset (https://www.kaggle.com/c/boston-housing)

CONCLUSION:

QUESTIONS:

1. Explain Linear Regression in detail.
2. Compute SST, SSE, SSR, MSE, RMSE, R Square for the below example.

Student	Score in X standard (Xi)	Score in XII standard (Yi)
1	95	85
2	85	95
3	80	70
4	70	65
5	60	70

3. Comment on whether the model is best fit or not based on the calculated values.
4. Write python code to calculate the RSquare for Boston Dataset. (Consider the linear regression model created in practical session)