

Practical 4

AIM:

Create a linear regression model using python to predict home price using boston housing dataset.

REQUIREMENT:

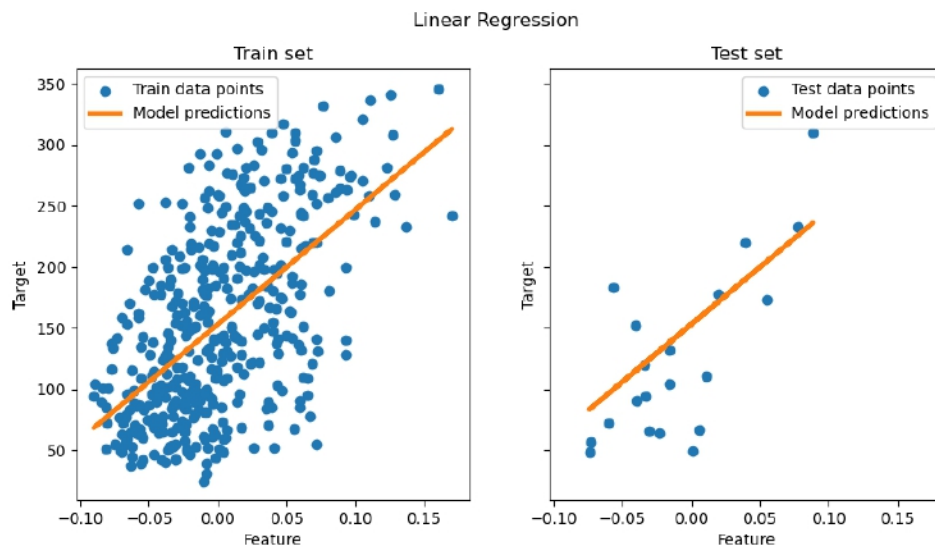
AnacondaInstaller

Windows10OS

JupyterNotebook

THEORY:

Linear Regression in data science:



The term regression is used when you try to find the relationship between variables. In Machine Learning and in statistical modeling, that relationship is used to predict the outcome of events.

SimpleLinearRegression:

Simple linear regression is an approach for predicting a response using a single feature. It is assumed that the two variables are linearly related. Hence, we try to find a linear function that predicts the response value(y) as accurately as possible as a function of the feature or independent variable(x).

Multiple linear regression:

Multiple linear regression attempts to model the relationship between two or more features and a response by fitting a linear equation to the observed data. Clearly, it is nothing but an extension of simple linear regression.

APPLICATIONS:

Trend lines: Trend lines show how data changes over time and can be predicted using linear regression.

Finance: In finance, linear regression helps analyze investment risk, and in biology, it is used to study relationships between variables.

Libraries Used:

Pandas

Sklearn

CONCLUSION:

In this experiment we have studied about linear regression and done house price prediction using boston housing dataset.