



# Vidyavardhini's College of Engineering and Technology

## Department of Artificial Intelligence & Data Science

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### Experiment No - 3

**Aim :-** Implement R Program for Multiple Linear Regression.

**Objective:-** To understand the use of Multiple linear regression techniques by implementing a predefined dataset of R Studio.

Description-

Multiple linear regression is the extension of linear regression in the relationship between more than two variables. In simple linear regression, we have one predictor and one response variable. But in multiple regressions, we have more than one predictor variable and one response variable.

There is the following general mathematical equation for multiple regression -

$$y=b_0+b_1*x_1+b_2*x_2+b_3*x_3+\dots b_n*x_n$$

Here,

- o y is a response variable.
- o  $b_0, b_1, b_2 \dots b_n$  are the coefficients.
- o  $x_1, x_2, \dots x_n$  are the predictor variables.