CSE4020

LAB-3

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Aim: To implement linear regression and multiple regression.

Procedure:

1. Collect the data
2. Linear regression
   1. Find the Sum, mean, sum of products and sum of squares.
   2. Calculate b by (sum of products)/ (sum of squares)
   3. Calculate a by imputing the mean of x and y
3. Multiple Linear Regression
   1. Find the Sum of products and Sum of squares for as a cartesian product of all the features.
   2. b1 = ((SPX1Y)\*(SSX2)-(SPX1X2)\*(SPX2Y)) / ((SSX1)\*(SSX2)-(SPX1X2)\*(SPX1X2))
   3. b2 = ((SPX2Y)\*(SSX1)-(SPX1X2)\*(SPX1Y)) / ((SSX1)\*(SSX2)-(SPX1X2)\*(SPX1X2))
   4. Now using the mean of x1, x2 and y and using b1 and b2, find the value of a by substituting the variables.