

Assignment-2: Implementation of Linear Regression (5 + 5 = 10 marks).

The data of two inputs (X1, X2) for each output (Y) are shown in the table below.

| X1 | X2 | Y |
|----|----|----|
| 1 | 2 | 11 |
| 3 | 4 | 27 |
| 5 | 6 | 43 |
| 7 | 8 | 59 |
| 9 | 0 | 45 |

The equation of the above mentioned data is ($5X_1 + 3X_2 = Y$). Use the linear regression line as a model to estimate the output value for the input pair (11, 1) and (1, 11).

- Estimate the model by using the batch mode.
- Estimate the model by using incremental mode.