# ASSIGNMENT - 2

**Department** : Computer Science and Engineering

**Assignment On** : 2

**Course Name** : Machine Learning and Data Mining Lab

**Course Code** : CSE - 4878

## Submitted To

Mrs. Subrina Akter

## Submitted By

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**ID No** : C191242, C191272

**Semester** : 8 th

**Section** : 8 BF.

**Date of Issue** :

**Date of Submission** : 31/01/2023

**Remark**

## Dataset Name: Students Mental Health.

## Dataset Description:

| Dataset characteristics: | Multivariate | Name of Instance: 102 |
|---|---|---|
| Attribute Characteristics: | Integer, Real | Num. of Attribute: 11 |
| Associated Tasks: | Regression | |

## Name of the Attribute:

1. Time stamp
2. gender
3. Age
4. course
5. year
6. CGPA
7. Marital status
8. Do you have Depression?
9. Do you have Anxiety?
10. Do you have Panic attack?
11. Did you seek any specialist for a treatment?

**Linear Regression with single variable :**

Predicted value: array ([1.6562695])

Coefficient : array ([0.00482242])

Intercept value: 1.5694660144853914

Linear Regression using formula :

$$y_1 = b_1 x_1 + b_2 x_2 + b_3 x_3 + a$$

The value = 1.6562695

$R^2$ value: 0.5712113152866571

**Linear Regression with Multiple variable:**

Predicted value: array ([[3.6115657]])

Coefficient : array ([[0.00212382, -0.18445951]])

Intercept Value: 3.7556635564445 26

Linear Regression: 3.5945660347 51763

$R^2$ value: 2.6514935737369294