Artificial Intelligence and Machine Learning Lab

Assignment No 8   **Due date- 22/11/2022**

1. Implement simple linear regression for below data. Also calculate accuracy of predictive model.

Year	GDP(X)	4wheeler_passengar_vehicle_sale(in lakhs)
2011	6.2	26.3
2012	6.5	26.6
2013	5.4	25
2014	6.5	26
2015	7.1	27.9
2016	7.9	30.4
2017	8.5	35.4
2018	8.9	38.5
2019	9.5	42.6
2020	10.6	48.3

2. Implement multiple linear regression model for below data, calculate accuracy using R^2 method.

X1	X2	Y
1	2	3
2	3	4
3	1	6
4	5	8
5	4	10
6	3	11
7	6	12
8	4	15
9	8	16

10	6	19

3. Implement a polynomial regression to identify the best-fit line for the below dataset.

X	Y
1	1
2	4
3	9
4	15
5	23
6	35
7	46
8	62
9	75
10	97

4. Implement logistic regression for below dataset.

Amount in savings	Loan defaulter
0.5	0
1.0	0
1.25	0
2.5	0
3.0	0
1.75	1
4.0	1
4.25	1
4.75	1
5.0	1

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