Check 20/09/2021

Review Linear vs Multiple Regression

Exp (x)	vs	Salary (y)
2		50,000
4		35,000
6		60,000
7		65,000
10		70,000

$y = b_0 + b_1 x_1$

b_0 = intercept

b_1 = Slope.

(x) Age, Size, Location — (y) Price

(iv) (dv)

Why?

R&D	Admin	Market Spend	State: New York	State: California	State: Florida	Profit
5	9	3	1	0	0	
6	2	4	0	1	0	
10	1	6	0	0	1	

$D_3 = -(D_1 + D_2) = -1$

$P + \hat{P} = 1$

$D_3 = D_1 + D_2 = ?$

$D_1 + D_2 = D_3$

$D_2 = 1 - D_1$

$= 1 - 1 = 0$

$0 = 0$

$D_2 = 1 - D_1$

$= 1 - 0 = 1$

State (Numeric data)

NH	CA	D_1	D_2	D_3 PL
1	0	1	0	0
0	1	0	0	1
0	0	0	1	0
0	1	0	0	0
1	0			

R no ① ②

D_1 NH	D_2 CA
1	0
0	1
1	0
0	1
1	0

$D_1 = D_2$ ✗

$D_1 = -D_2$ ✗

$D_1 = 1 + D_2$ ✓

$D_1 = 1 - D_2$ ✓

$D_2 = 1$

$D_2 = 1 - D_1$