Assignment -7A

Date	Time	load (kw)
01-09-2018	0100	5551.322
01-09-2018	1:00	4983.172

Day -1 (x)

5551.82208

4983.17184

Day 2 (y_c)

4931.26380

4775.53968

step 1:- $\eta = 0.1$, epochs = 2, $m = 5$, $c = 1$, $\gamma = 0.9$,

$v_m = 0$ & $v_c = 0$

step 2: Set iteration = 1

step 3: set sample i=1

step 4:- $y = (1)(5551.82208) - 1 = 5550.82208$

step 5:- $\frac{\partial E}{\partial m} = (4931.26380 + 1(5551.82208) + 1)$

5551.82208

$\frac{\partial E}{\partial m} = 34396777.338770$

$\frac{\partial E}{\partial c} = -(4931.26380 - 1(5551.82208) + 1)$

$= 619.55828$

Step 6:- $V_m = 0.9(0) - (0.1)(3439677.338780)$

$= -343967.733375$

$V_c = -6195583$

Step 7:- $m = 1 + (-343967.733375)$

$= -343966.733375$

$c = 1 + (-61.995583)$

$= -62.995583$

Sample-2:-

Step 1:- $y = (-343966.734)(4983.17184) + (-62.995583)$

$= -1714049546.572$

Step 2:- $\frac{\partial E}{\partial m} = \frac{1}{n}((4775.53968 - (-343966.734)(4983.17184) - (-62.995583))(4983.17184)$

$= -8541406595607.112$

$\frac{\partial E}{\partial c} = -1714050181.261$

Step 3:-

$v_m = 0.9(-343967.734) - (0.1)(-8541406195 - 607.112)$

$= -8541409691 31.67$

$v_c = 0.9(-61.95583) - (0.1)(-171405101 - 81.201)$

$= -171405073.88634$

Step 4:-

$m = -343966.734 - 8541409691 31.67$

$m = -8541413130 98.4$

$c = -62.95583$

Iteration-2

Sample 1:

Step 1:- $y = (-8541413130 98.4)(5551.82208) + (-62.95583)$

$= -4.74204060 14E15$

Step 2:- $\frac{\partial E}{\partial m} = -(4931.26380 + 4.74204060 14E15)(5551.82208)$

$= -2.63269657 1.56E19$

$$\frac{\partial E}{\partial c} = -4.74204060176E15$$

Step 3:- $V_m = (0.9)(-854109691 31.67)$

$$-(0.1)(2.632696)$$

$$= 2.63269558e18$$

$$V_c = (0.9)(-17140507 3.88634) -$$

$$(0.1)(-4.74204 06)$$

$$= 4.74203906e14$$

Step 4:-

$$m = -854141313098.4 + 2.63269 5E18$$

$$= 2.632694$$

$$c = -62.99583 + 4.74203906E14$$

$$= 4.74203906e14$$

Sample-2

Step 1:- $Y = (2.63269)(4983.1718) + 4.742039$

$$= 1.311917$$

Step 2:- $\frac{\partial E}{\partial m} = -((-4775.53968 - (2.63269 4 9 5e18$

$$(4983.1718)$$

$$- 4.74203))(4983.1718)$$

$$= -(4775.539 - 1.31191)(4983.1718)$$

$$= -6.587508$$

$$\frac{\partial E}{\partial c} = -(4775.53968 - 1.3119).$$

$$= -1.3119$$

Step 3:-

$$v_m = (0.9)(2.6326) - 0.1(-6.53775)$$

$$= 6.53751$$

$$v_c = (0.9)(4.74203) - (0.1)(-1.3119)$$

$$= 1.3119$$

Step 4:- $m = 2.6326 + 6.53775$

$$= 6.53751$$

$$c = 4.7420396 + 1.311917$$

$$= 1.311918.$$