Assignment -7

Date	time	load (kw)
01.09.2018	0.00	551.822
01.09.2018	1.00	4983.172

Since, the load has to predicted based on the same hour load in the previous day, the dataset has to be modified

Day-1 (x)	Day-2 (y)
5951.82208	4931.26380
4983.17184	4775.53968

S-1:- Read dataset, $\ell = 0-1$, epochs = 2, $m = 1$, $c = -1$,
$\quad v = 0.9$, $v_m = 0$ and $v_c = 0$

S-2:- set iteration = 1

S-3:- set sample = 1

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

S-5: $\dfrac{\partial t}{\partial m} = -(4931.26380 - 1(5551.82208) +1)5551.82$

$$= 3439677.331750$$

$$\dfrac{\partial t}{\partial c} = -(4931.26380 - 1(5551.82208) +1)$$

$$= 619.55828.$$

$S - 6 :$ $V_m = 0.9(0) - (0.1)(34396 + 7.338258)$

$\quad\quad V_m = -34396.733375$

$\quad\quad = 0.9(0) - (0.1)(619.55828)$

$\quad\quad = -61.95583$

$S-7 :$ $m = 1 + (-34396.733875)$

$\quad\quad = -34396.733815$

$\quad\quad = -1 + (-61.95583)$

$\quad\quad = -62.95583$

$S-8 :$ sample $i = i + 1 = 2$

$S-9 :$ $Y = (-34396.734)(4983.17184) + (-62.95583)$

$\quad\quad = -171404545405.72$

$S-10 :$ $\dfrac{\partial \epsilon}{\partial m} = -((4775.53968 - (-34396.734))$

$\quad\quad\quad\quad\quad (4983.17184) - (-62.95583))$

$\quad\quad\quad\quad\quad (4983.17184)$

$\quad\quad = -8541406595607.112$

$\dfrac{\partial \epsilon}{\partial c} = -171405018.261$

$-11 :$ $V_m = 0.9(-34396.734) - (0.1)(-8541406595607.112)$

$\quad\quad = -854140969969131.67$

$\quad\quad = 0.9(-61.95583) - (0.1)(171405161.261)$

$\quad\quad = -171405073.88634$

S-12: $m = 347986.734 - 854140967131.67$

$m = -854141313098.4$

$c = -62.99583$

S-13: Iteration $+1 = 2$, sample $= 1$

S-14: $y = -(854141313098.4)(5551.82208) +$

(-62.95593)

$= -4.7420406014 \, E15$

S-15: $\dfrac{\partial E}{\partial m} = -(4931.26330 + 4.742040606014 \, E15)$

(9551.82208)

$= -26.326965715 \, 6 E19$

$\dfrac{\partial E}{\partial c} = -4.742040606150 \, E15$

S-16: $V_m = (0.9)(-854140969131.67)(0.1)$

$(-2.6326965715 \, 6 E19)$

$= 2.6326958e18$

$V_c = (0.9)(-171605073.88(34) - (0.1)(-4.742060)$

$6015 \, 0 E15)$

$= 4.74203906 \, E14$

S-17: $m = -854141313098.4 + 2.6326958 \, E18$

$= 2.63269485e18$

$c = -62.80983 + 4.7420390 \, 6E \, 14$

$= 4.7420390 \, 6E \, 14$

S-18: Sample $= 1 + 1 = 2$

S-19: $y = 1.31191718E22$

S-20: $\dfrac{\partial f}{\partial m} = -6.53750875E25$

$\dfrac{\partial f}{\partial c} = -1.31191718E22$

S-21: $V_m = (0.9)(2.632.6958E18) - (0.1)(-6.93750875E25)$

$\neq 6.53751112E24$

$V_c = (0.9)(4.7420390 \, 6E \, 14) - (0.1)(-1.31191718E2)$

$= 1.31191761E21$

S-22: $m = 2.63269495E + 6.53751112E24$

$= 6.53751375E24$

$c = 4.7420390 \, 6E \, 14 + 1.31191761E21$

$= 1.31191808E21$