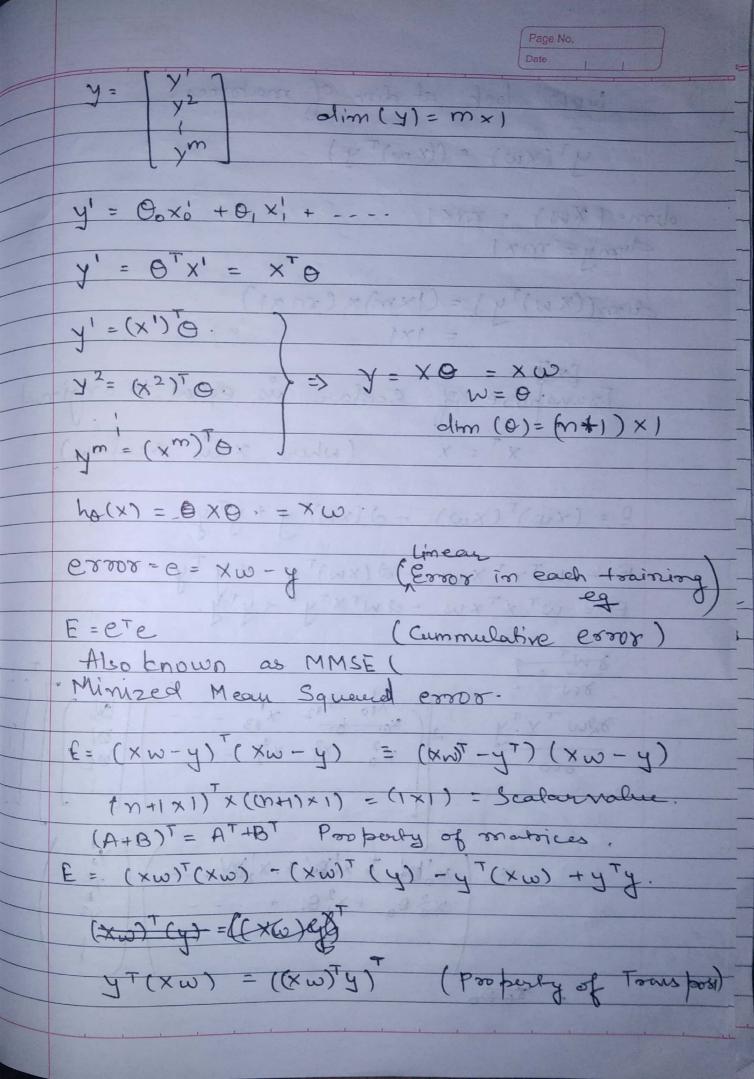
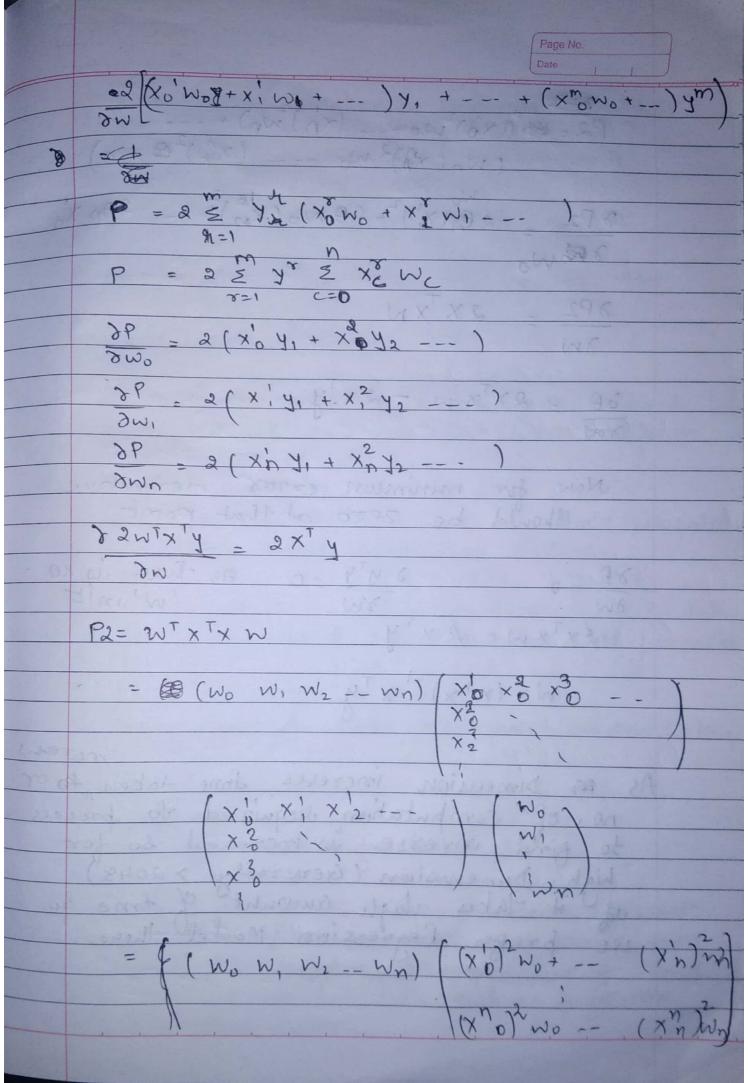
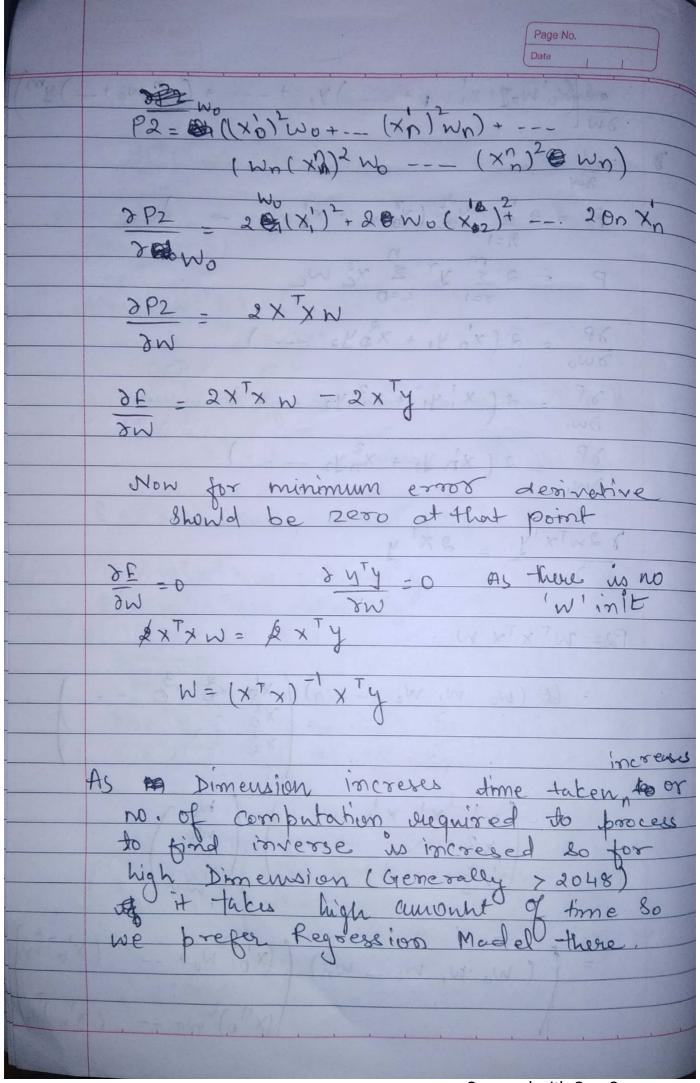
	Week-3. Page No. Date
1	(p-v,x) (p wx) = 9
117	Normal equation based Approach
=>	Using linear algebra. All this broblem of selecting 'x', no how many iteration and other
rate:	Advantages of NE over linear Regression
	3 Single Step 3 No 1'x 1 Solichian
	WHEN (WX) B - COXITCHXII S
>	Dis advantages when n becomes big more Computational Power lequired.
	Derivation 0= 1/12 - 1/1X 1/1X
	ho(x) = OT x in vectorize format.
	lets fout & X in alifferent format
-	Mic X = [1 "]
	(x'n (n*1) * 1
	$X = \begin{bmatrix} x_0 & x_1^1 & \dots & x_2^1 & \dots & x_2^1 & \dots & x_2^1 & \dots & \dots & \vdots \\ x_0^2 & x_1^2 & \dots & \dots & \vdots & \dots & \vdots & \dots & \vdots \end{bmatrix} $
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$dim(x) = m \times (n+1)$
	(A) (171)



Now look at dim of matrices. yT(xw) = ((xw)Ty) dim((XW) +) = (1xm)x(mx1) Transpose of Scalar is equal to original E = (xw) (xw) - 2 (xw) + y + y + y + y E = WTXTXW - 2(XW)TY + YTY

E = WTXTXW - 2WTXTY + YTY. x 66 \$ x 10 + x 203 -x200 + x20, + --





	Page No. Date
	when normal equation is preferred
	when dimension < 1024 to
	dim (w) < 1024
	dim(w) < 1024 NE is preferred
September	Clustering
	Unsupervised learning
-	In Supervised loanning we are given a label
	associated with each data point, which helps in Classification of data.
3011	of data.
	In the substrained we don't have any labels associated
	In unsupervised we don't have any labels associated with it and tasked to find some stucture
	The desired and the second sec
	One such approach and be to divide the given data
Braple	into various distinct duster based on some properties
	Haplication
7	use of to find loatern un stern
-)	Dividing Constomer base into segment on some conterio
	Extra
69.1	and street with males assessment the work yet a line to
	an ne labeled data for clustwing?
	D D
Hick	The thing is that we can use whatever we want,
APRILITA III	to use what matters is rusults. a rusults for
	Inhelled dator us not as good on that of some
	Algorithm for labelled data such as sugression.
	They perform better.

Page No. Why? Because Chistering ties to find Julation 10/w want bulation bow data point and its label they perform boody as they fail to do so. some pesson visits some messi e-comme poloel when the buy something Classifier tries to predict wheather he will buy time or not (what he will byig) Whereas Clustering may by to aluster it aser with its parameter based K-Means Christering This is an iterative algorithm which perform algorithm first: randomly takes k - data point as center Second Then for every Iteration, colour the points based on its nearest centroid Then more centroid to center of all then supeat until not a single cont Olienge uts color.