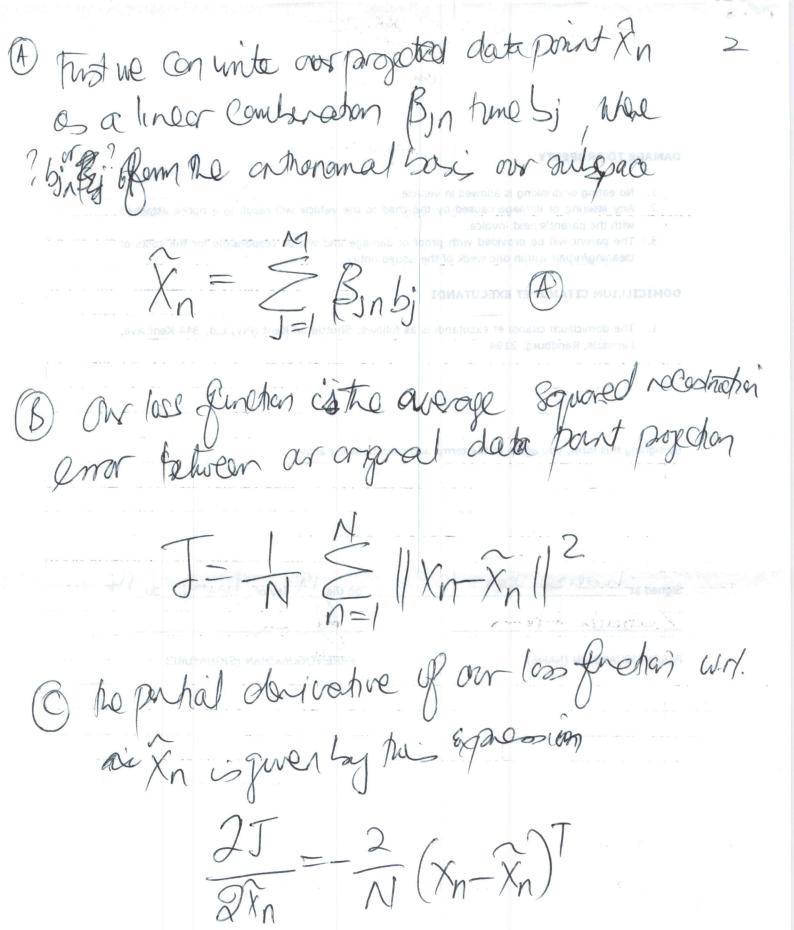
Module :4 Ophmal Proxidari poraniet In the last session we setup he PCA objective, and in Missession we will delemene our faist set of objectional parameters. he nate 2 gerod assemptions, in The Legenmeng centred data "had means the appelled value of our data set is 0," E[X] = 0 scard, short "he bosi vectors Form anonthonormal bosi" 51, ..., by ONB ter prevois session ne conjover he followy.



and now we acready to compute the partial 3 derivative of I with Bin promotors as follows:
Please make sure your child is on time, at least 30 minutes before pickup, and waiting the following of the step in the step i
E. The PerencyGuantian will be required NXQ and signify demands Form Commander of the shuttle, sayshed NXQ and NXQ and South South Sanday Sanday South Sanday Sou
If child participate is extra mural activities, an additional fee will be charged. The parent must provide such a roster will in advance, so are amount can be added to next modes. The parent must provide such a roster will in advance, so are amount can be added to next as lease that the star normal scrool departure unless the table of the star normal scrool departure unless the table of the star normal scrool departure unless the table of the star need of the star normal scrool departure unless the table of the star normal scrool departure unless the star no
2xn Bin is amply given by bi for clegrat 1, M.
2. Apus Mad discuptive Albanium was not boroted the children MXD med chou, and that the child engine of the child engine play or unrusess or any behaviour considered exercisive.
of ree on for he if we take the derivative wrt. to one fixed to Bin, son only the ith Component 1 C (1)(2) I'll play artle
hat he reason why we and up supply to
MMA S. (K)

hotalonea hat or dervative of 25 wit. 4 L'Bin "Inawguen bythe -2 over N tunks Yn mens Yn trængere bi, there $\frac{\sqrt{J}}{2} = \frac{2}{N} \left(\frac{x_n - \hat{x}_n}{x_n} \right)^T 5i$ Added 5i What we going to do naw, we going to replace In ving Equation (A) $=\frac{1}{N}\left(x_{n}-\frac{2}{5}\beta_{j}^{n}b_{j}\right)b_{i}$ ONB -2 (XTbi-Binbibi) where we exploited that he bi florm an on on an an arms of the sais. We multiply by to Both Earponent here, we ado up with sun of Bin times by transper and since Binbit xbi is 1, if and only if, i=j, observe zero(i). be end up "biTbi = 1" - - XnTbio - Bin = 0 we weed to set this to zero in ado to find Bin parameters. Theres zero, if and only of, Bin parameters are given by Xn'bi (=) Bin = Xn bi Egnadon (D) What this means that he optimal countrates of Yn wit for bois, are he onthogonal projections of the coordinates of as arrival data points on to the ith box; beclar that spans our principal fullipace.

In his amon we determined that the cardinals of laver demensional data is the orthogonal projection of the original data ento the locals vectors that span the principal substitute of the In west session we will determine the original basis that spans the principal sistence.