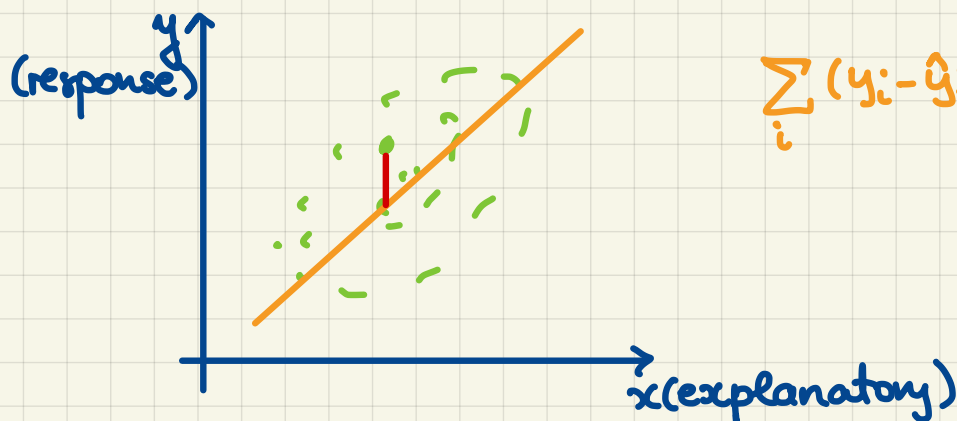


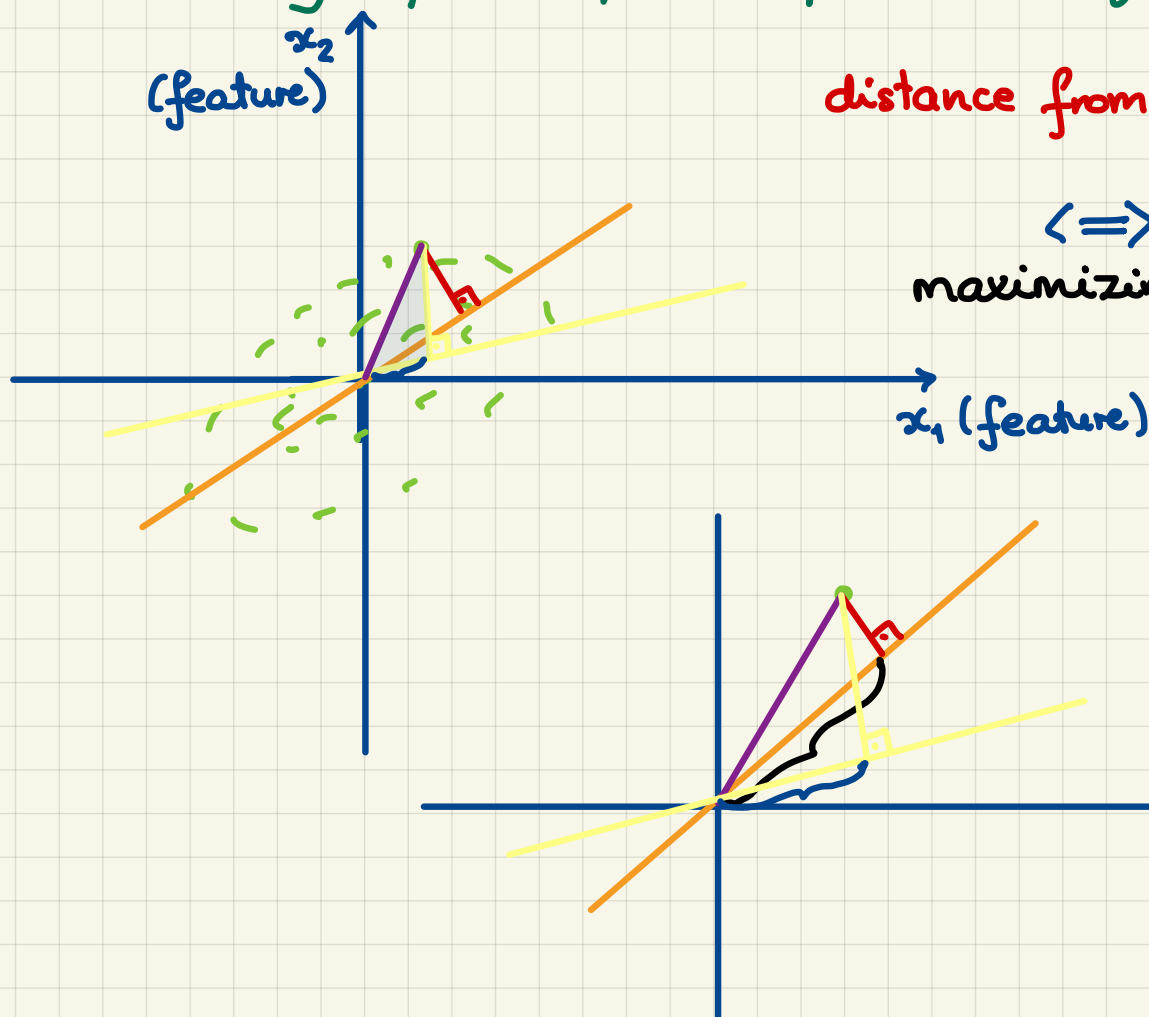
M339G: February 26<sup>th</sup>, 2025.

Geometry of Linear Regression.



$$\sum_i (y_i - \hat{y}_i)^2 \rightarrow \min$$

Geometry of Principal Components Analysis.



distance from cloud to line  
 $\rightarrow \min$

$\Leftrightarrow$   
maximizing the variance