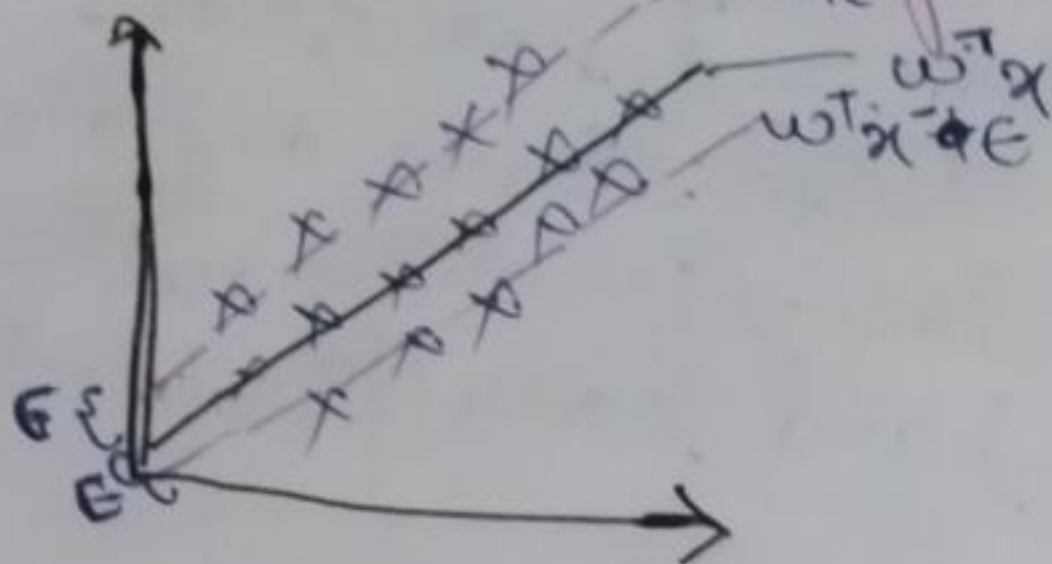
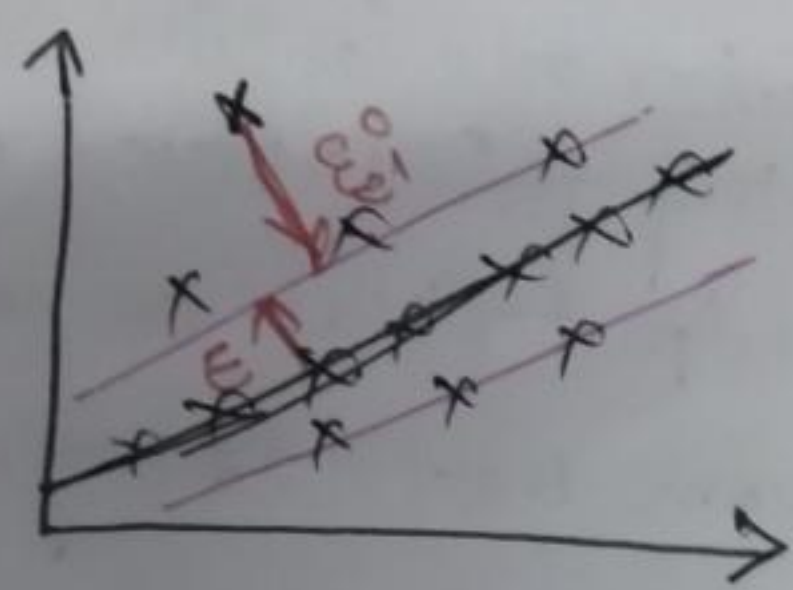


Support vector Regression



Cost function - margin plane ke data points
Minimize $\frac{\|w\|}{2}$
(w, b)

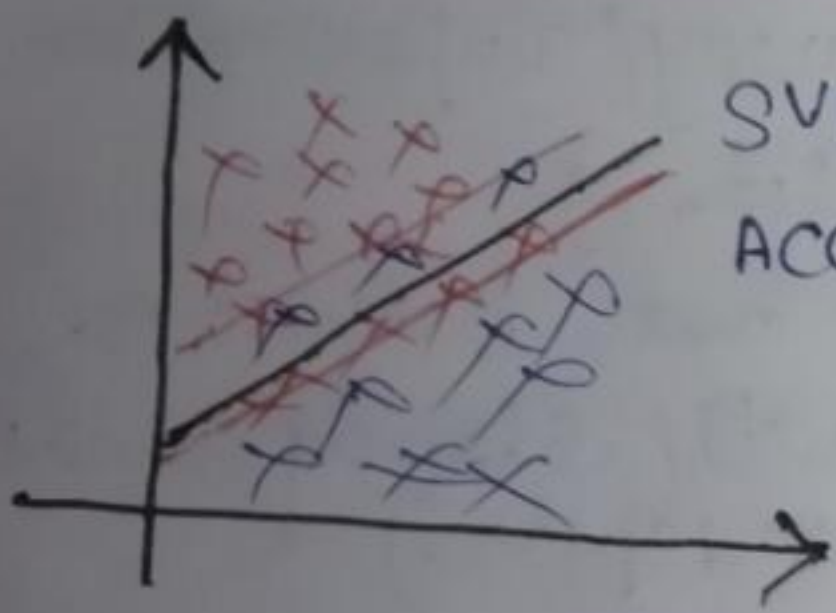
Constraint -
 $|y_i - w^T x_i| \leq \epsilon$ - It's very good.



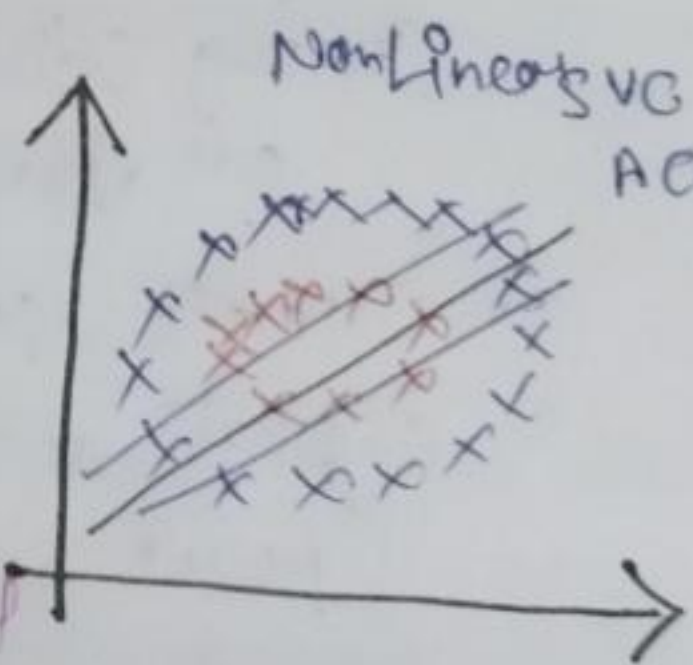
Cost fun. (margin plane ke bahar wale data points)
Minimize $\frac{\|w\|}{2} + C \sum_{i=1}^n |\epsilon_i|$
(w, b)

Constraint
 $|y_i - w^T x_i| \leq \epsilon + |\epsilon_i|$
Hinge loss Hyper plane meter

Support vector Machine kernel.



SVM Linear
ACC ↑



NonLinear SVM
ACC ↓

SVM Kernel

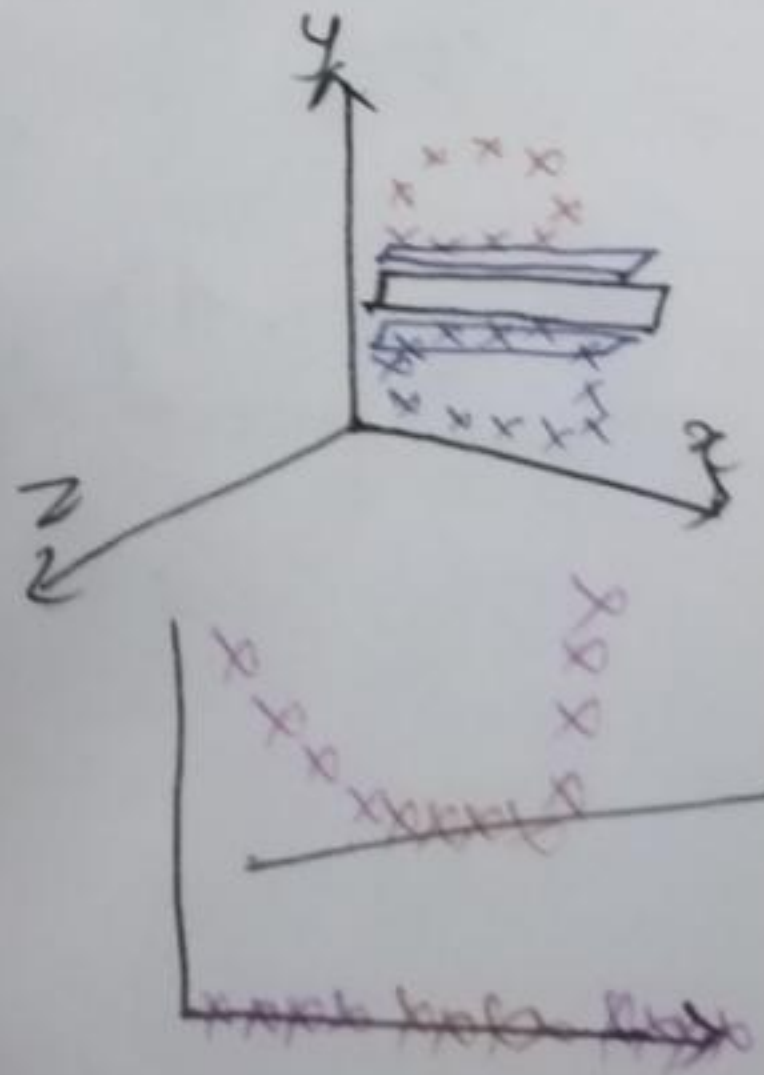


Linear SVM

- Transformation
↳ Mathematical formula.

Transformer

$$y = x^2$$



Eg -

