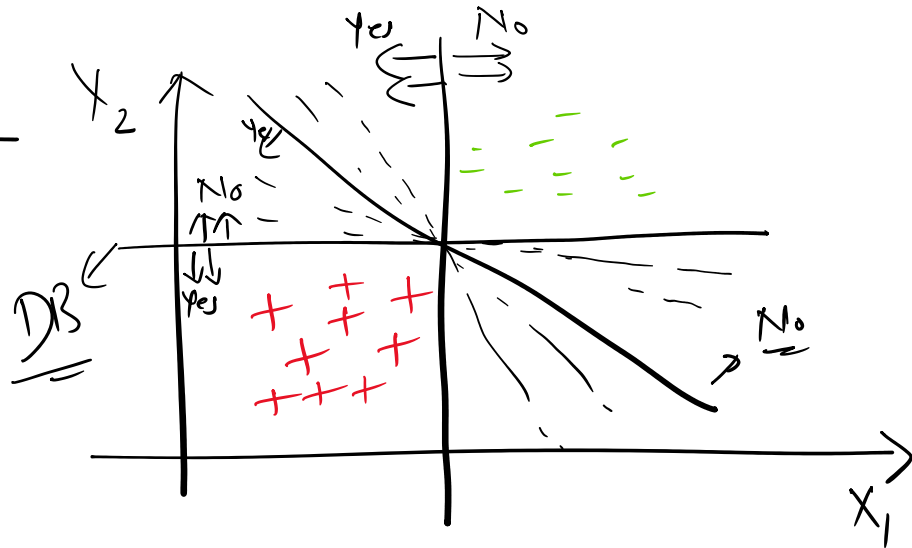# SVM (Support Vector Machines) :-

— Supervised ML algorithm ~~is~~ used for both Classification & Regression.

— <u>Goal</u> :- To find a hyperplane in a N-dimensional space (N- no. of features) that distinctly classifies the data points.

X_1	X_2	Target
—	—	Yes
—	—	No
		⋮

Yes	—	+
No	—	−

X_2

H_2 No?

H_1

Yes — +

No — —

Hyperplane

X_1

maximum margin

Best Decision Boundary

HP

x_2

Support points

Support Vectors

x_1

SVM