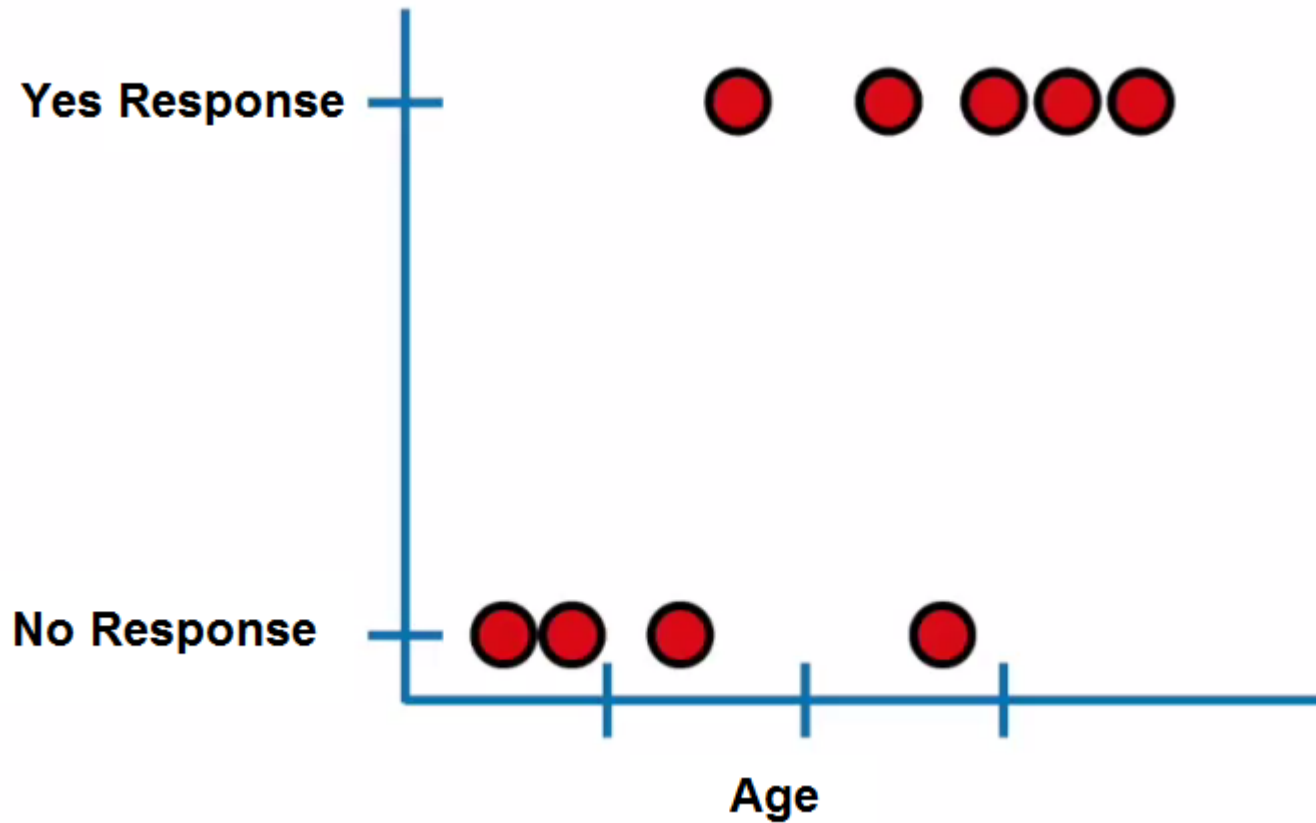


Classification

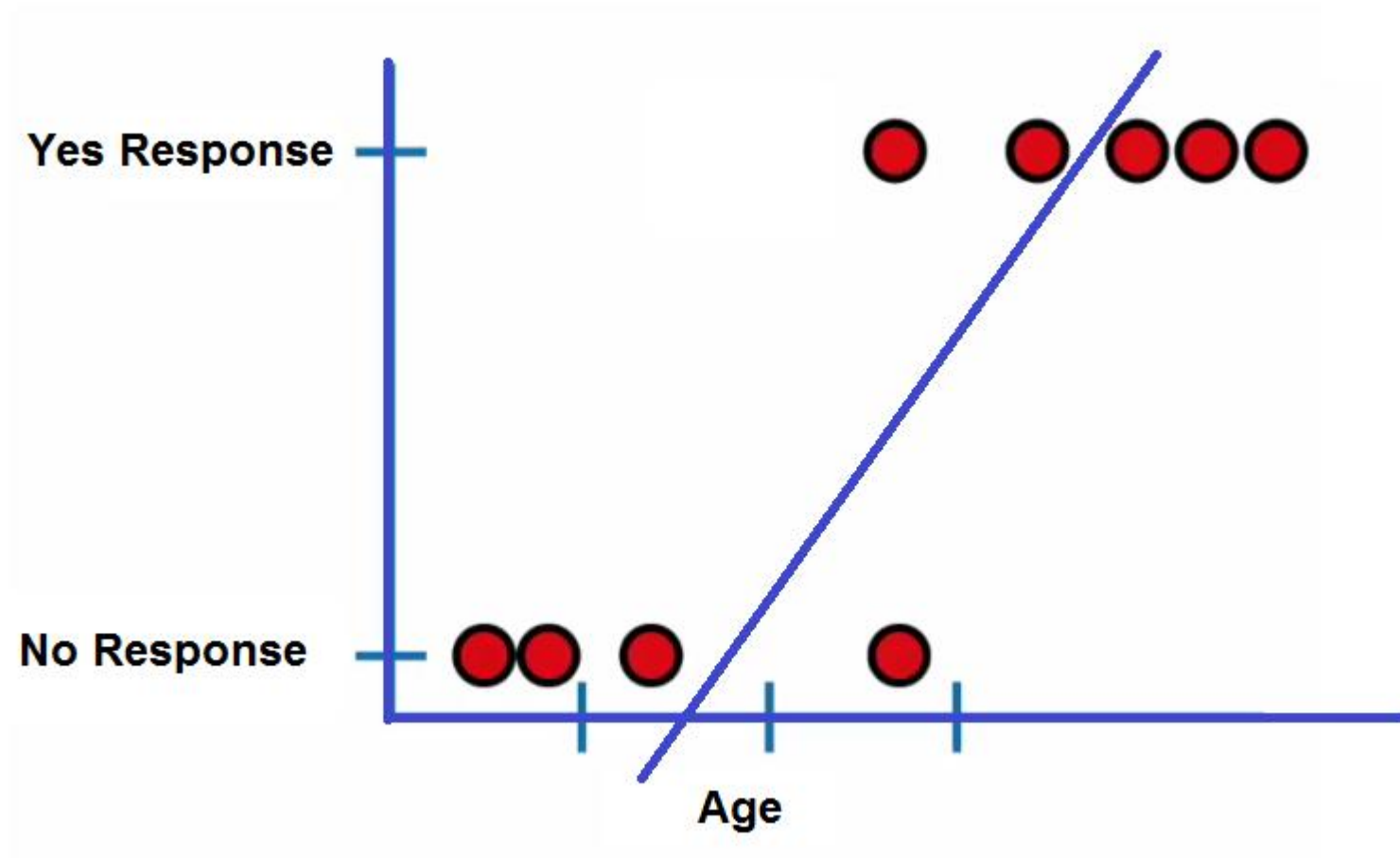
Confusion Matrix

n=165	Predicted: NO	Predicted: YES	
Actual: NO	TN = 50	FP = 10	60
Actual: YES	FN = 5	TP = 100	105
	55	110	

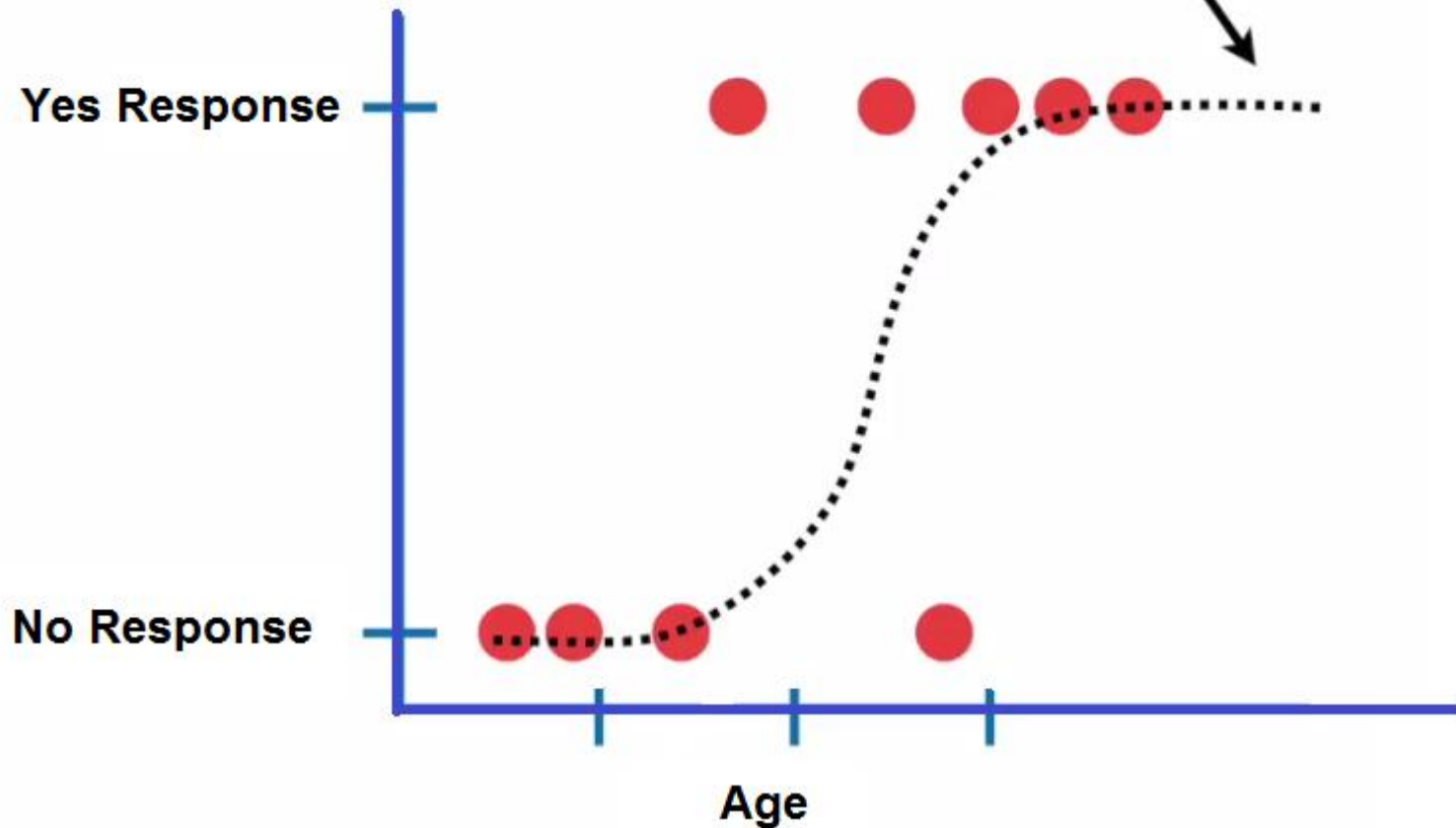
Logistic Regression



Logistic Regression

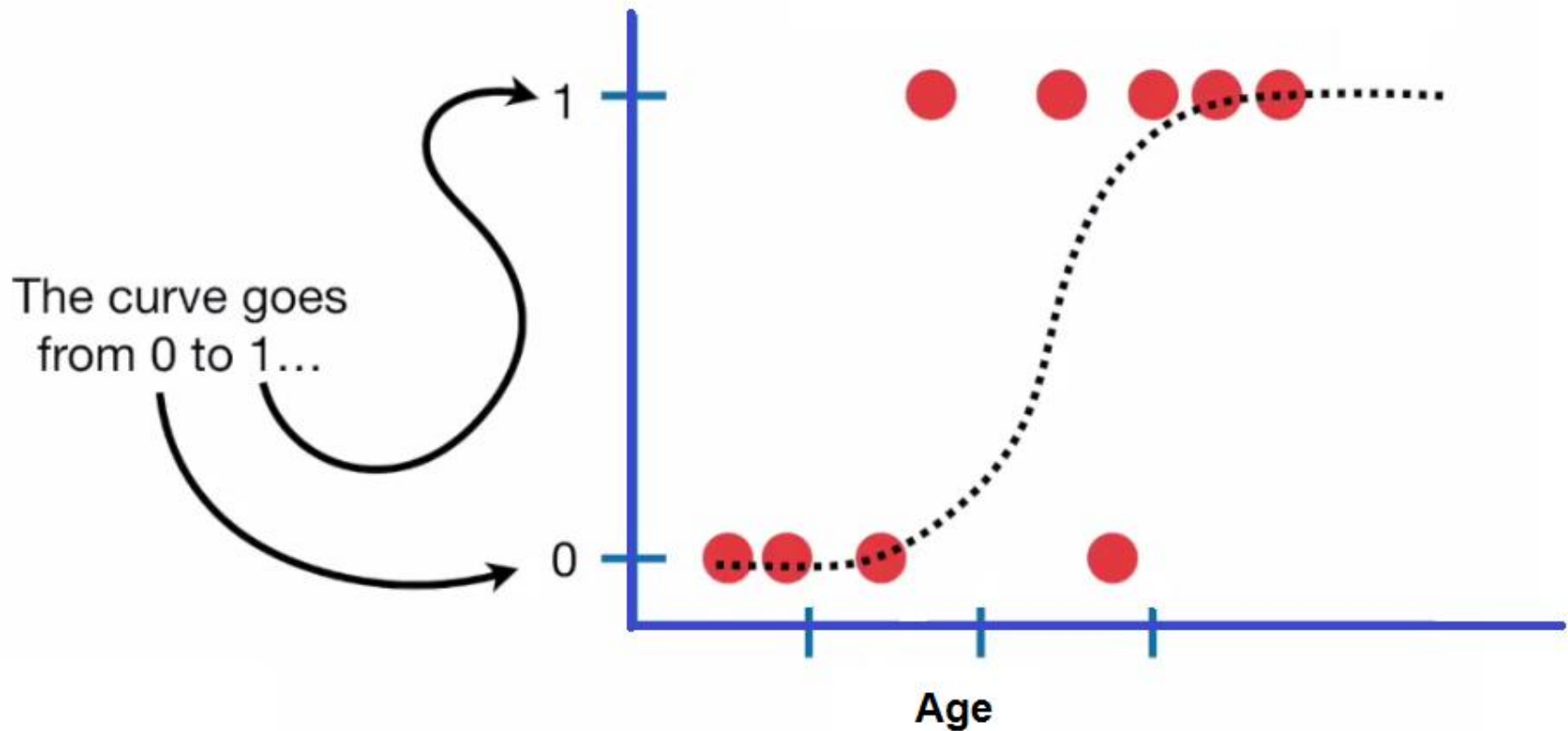


instead of fitting a line to the data, logistic regression fits an "S" shaped "logistic function".



Logistic Regression

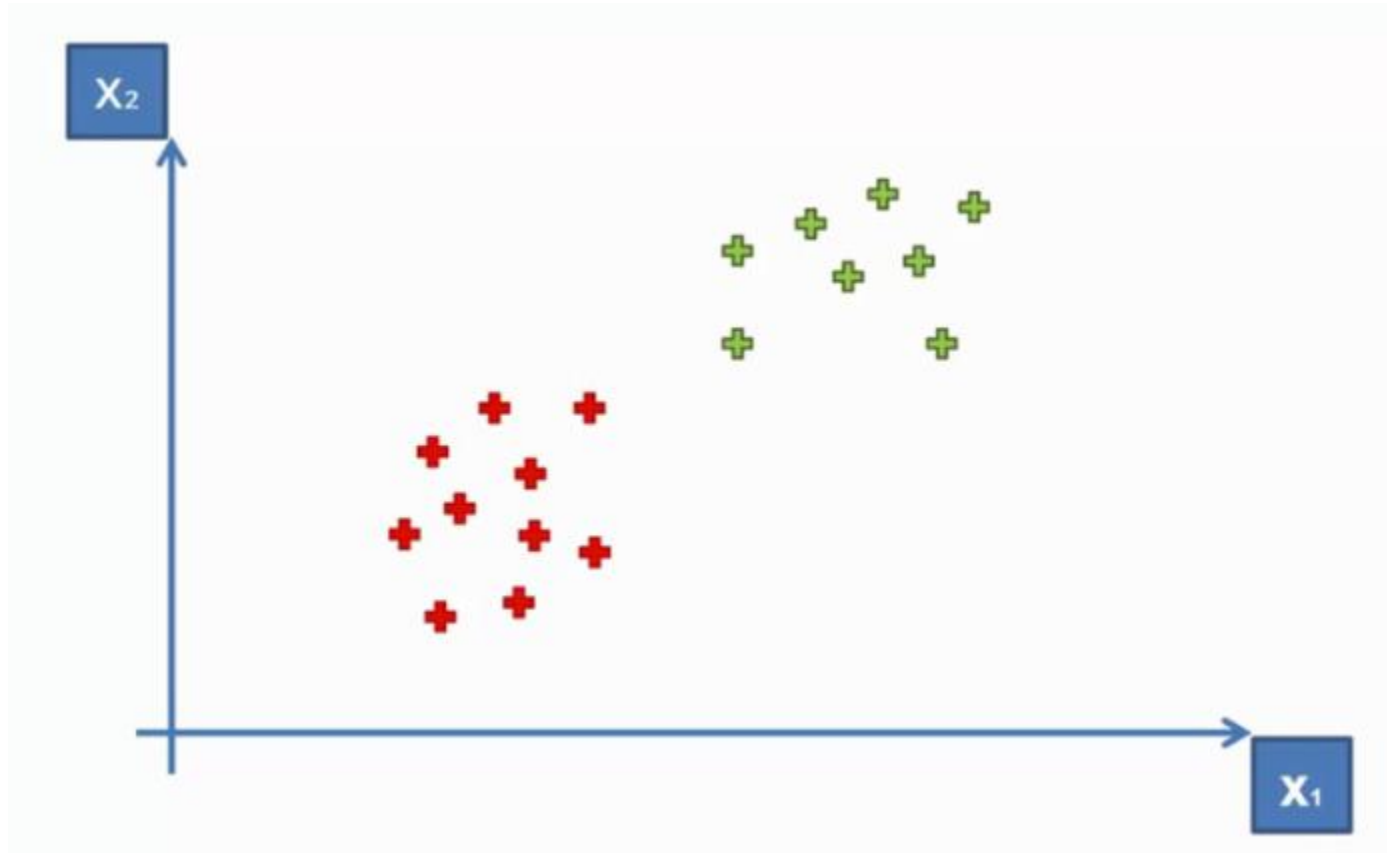
curve tells you the probability

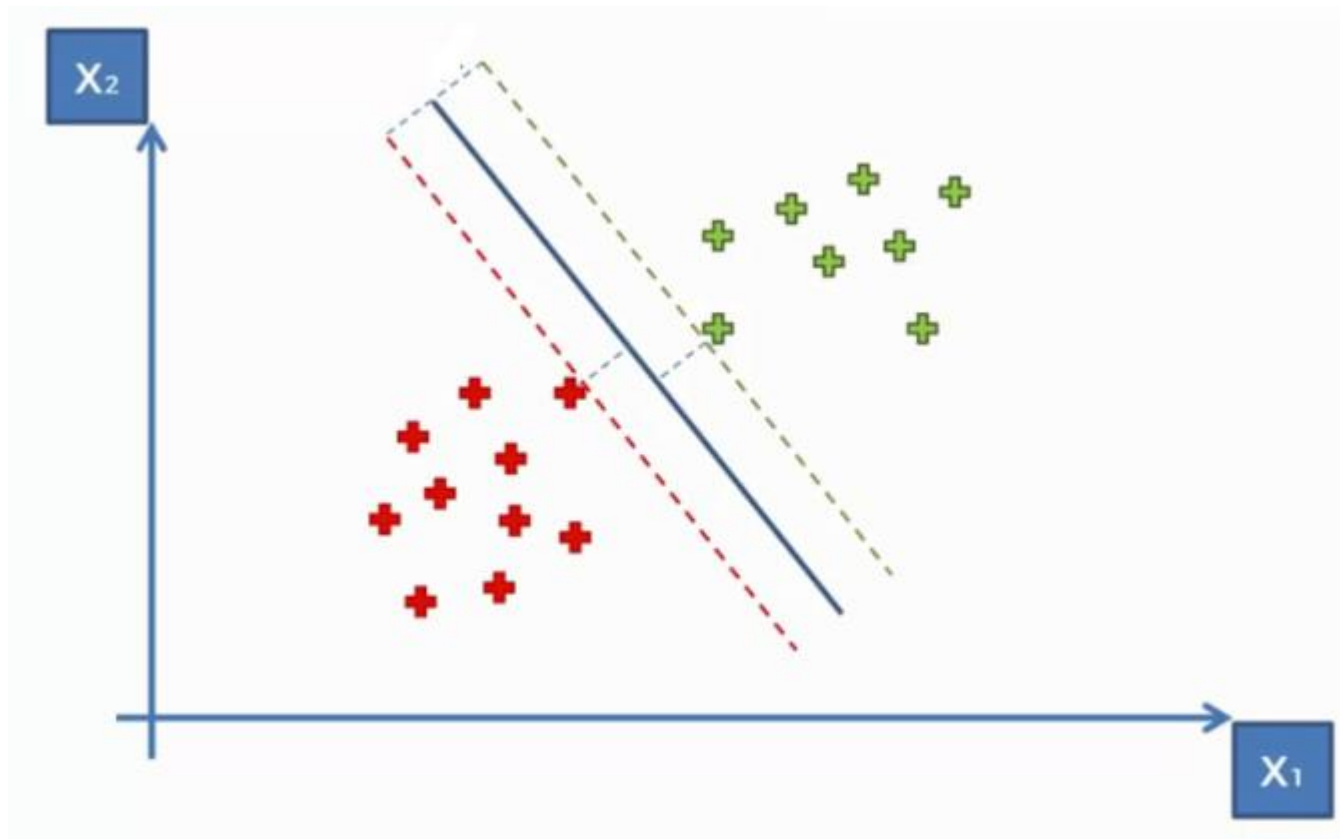


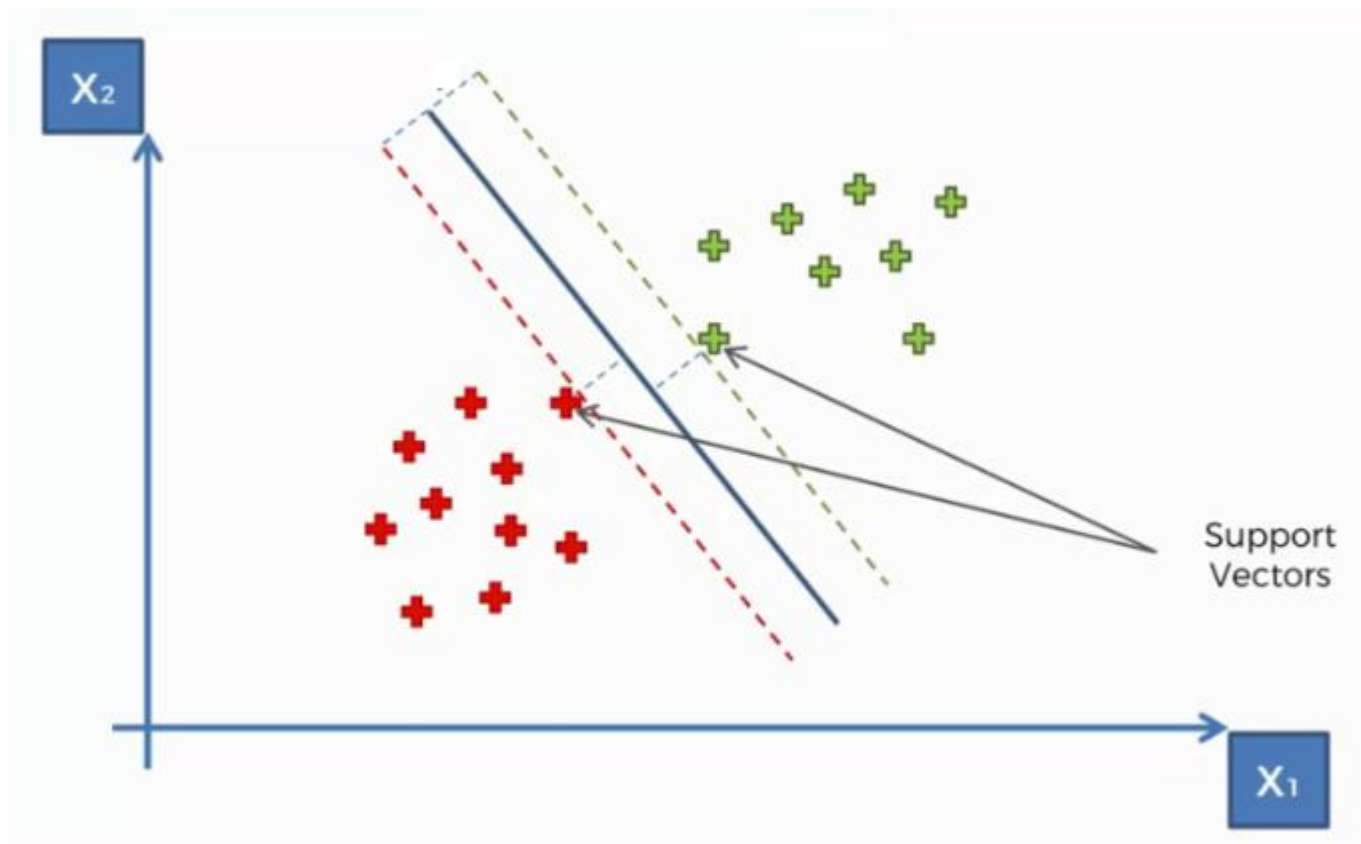
Feature Scaling

- StandardScaler will **transform** the data such that its distribution will have a **mean value 0** and **standard deviation of 1**
- This is useful while **comparing data** that corresponds to **different units**. In that case, we want to **remove the units**.
- This is done in a consistent way for all the data, we **transform the data** in a way that the **variance is unitary** and the **mean of the series is 0**.

Support Vector Machine

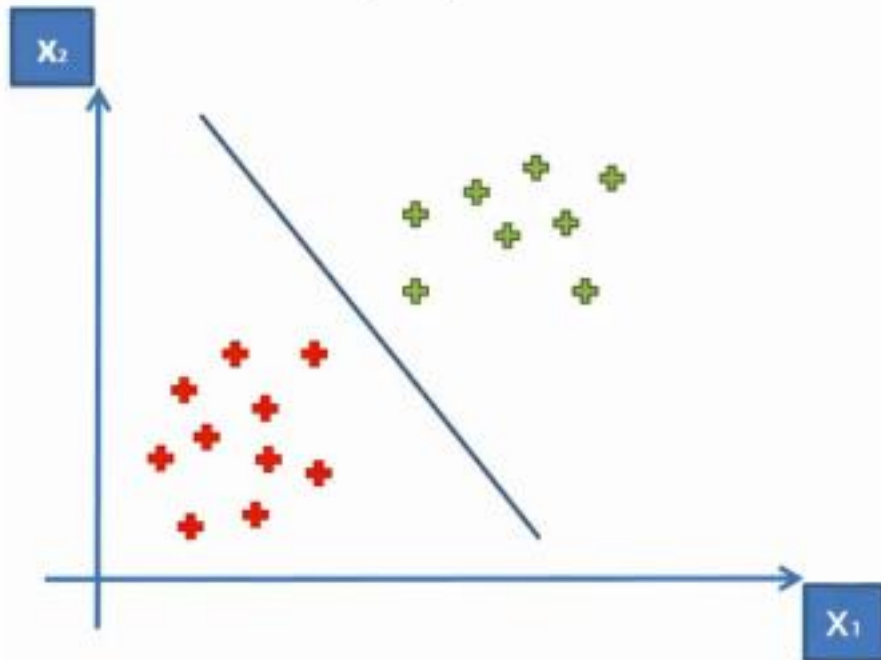






Kernel SVM

Linearly Separable



Not Linearly Separable

