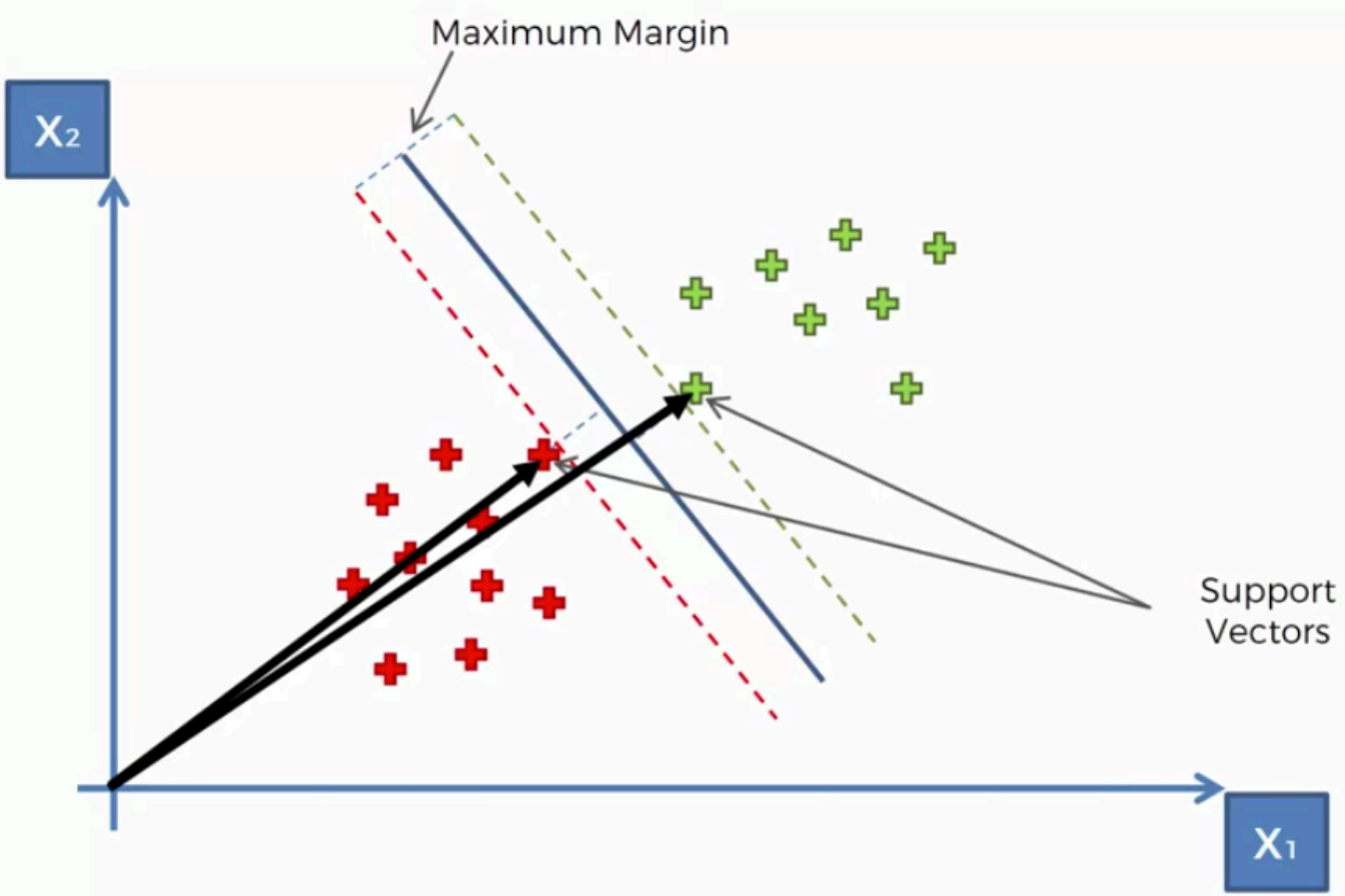
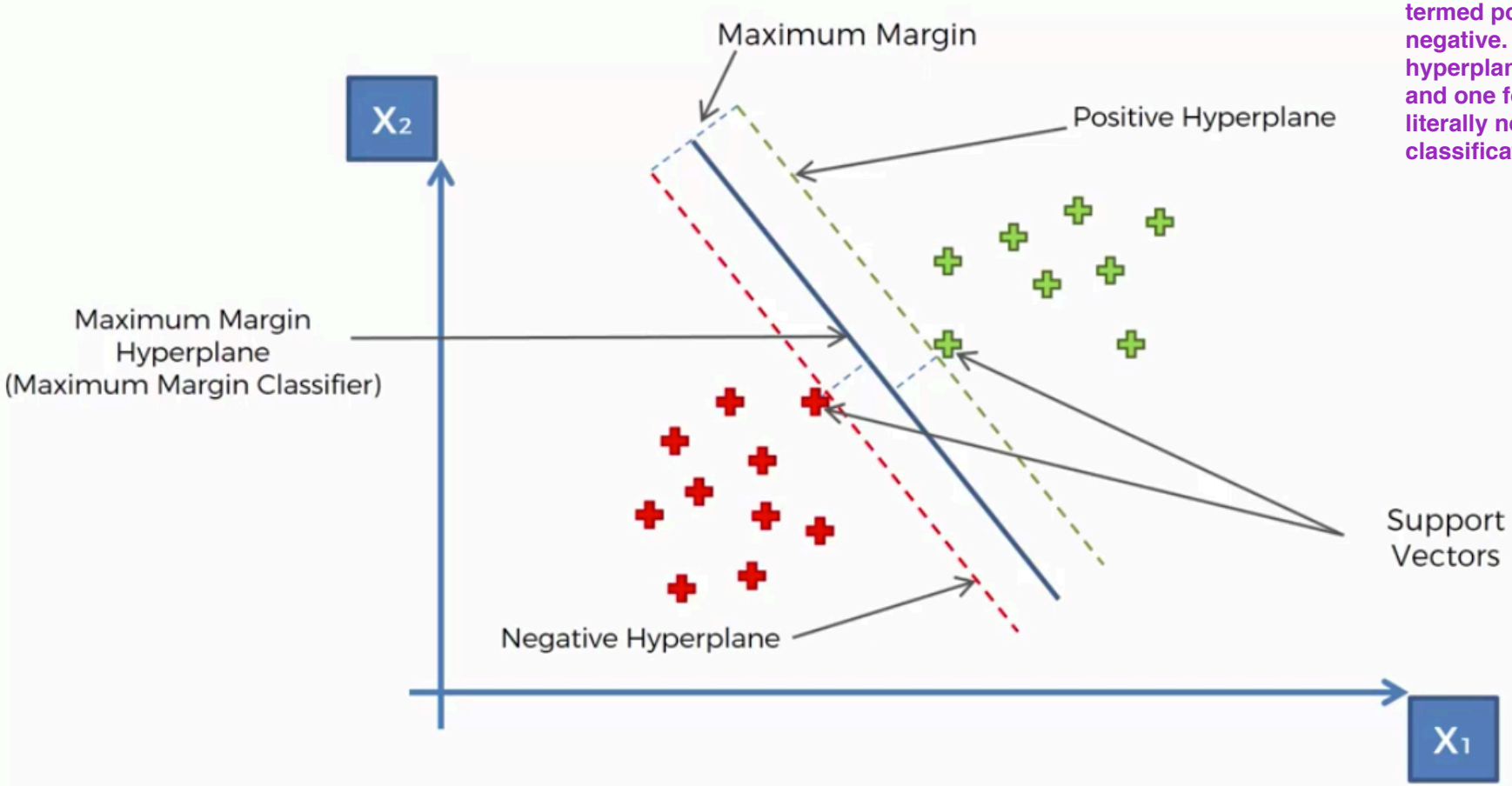
Support Vectors

Data points are called vectors because in higher dimensions they may not be representable in the form of a graph plot. But they may be easily representable in the form of multivariate vectors.

Support Vectors mean that the model can still learn to classify even when the other training vectors are not available.



Hyperplanes

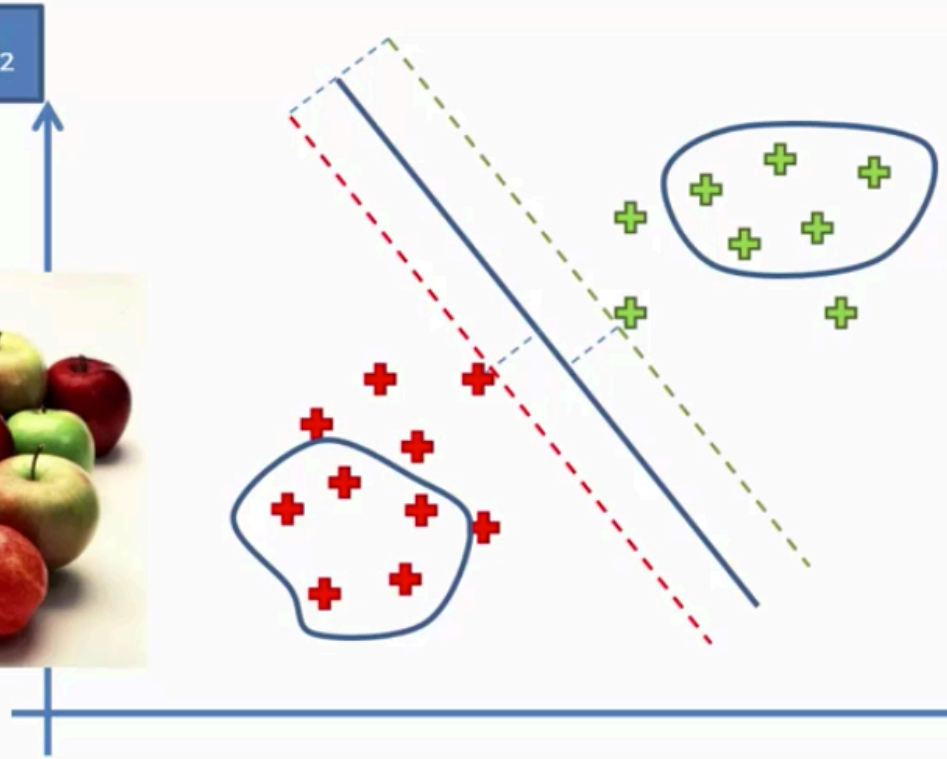


It does not matter which one is termed positive and which one negative. It is just that one hyperplane is for positive category and one for the negative (not literally negative, just for classification).

What's So Special About SVMs?

How traditional machine learning algorithms work ?

They use data to learn which is more likely to be like other items in the same category. Example, apples which are more like other apples and oranges which are more like other oranges.



What's So Special About SVMs?

How SVM machine learning algorithm works ?

It uses extreme data to learn which is more likely to be like the items in another category. Example, apples which are more like oranges and oranges which are more like apples.