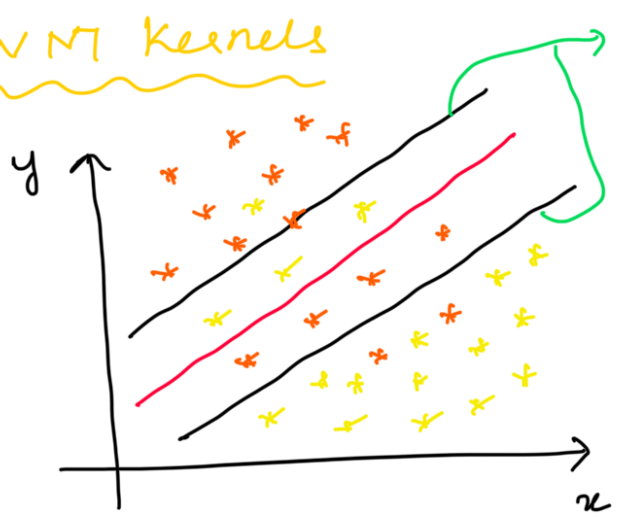
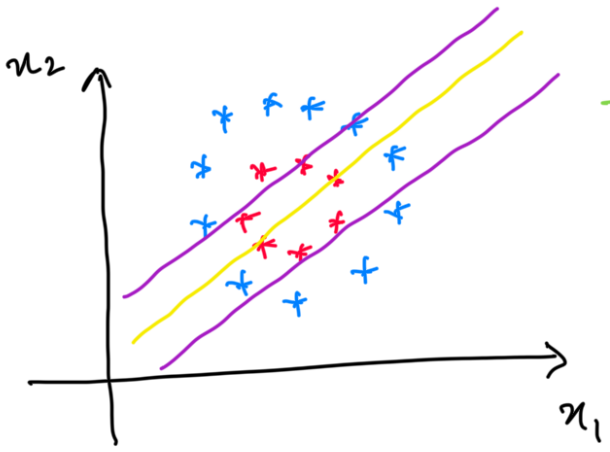
# SVM Kernels

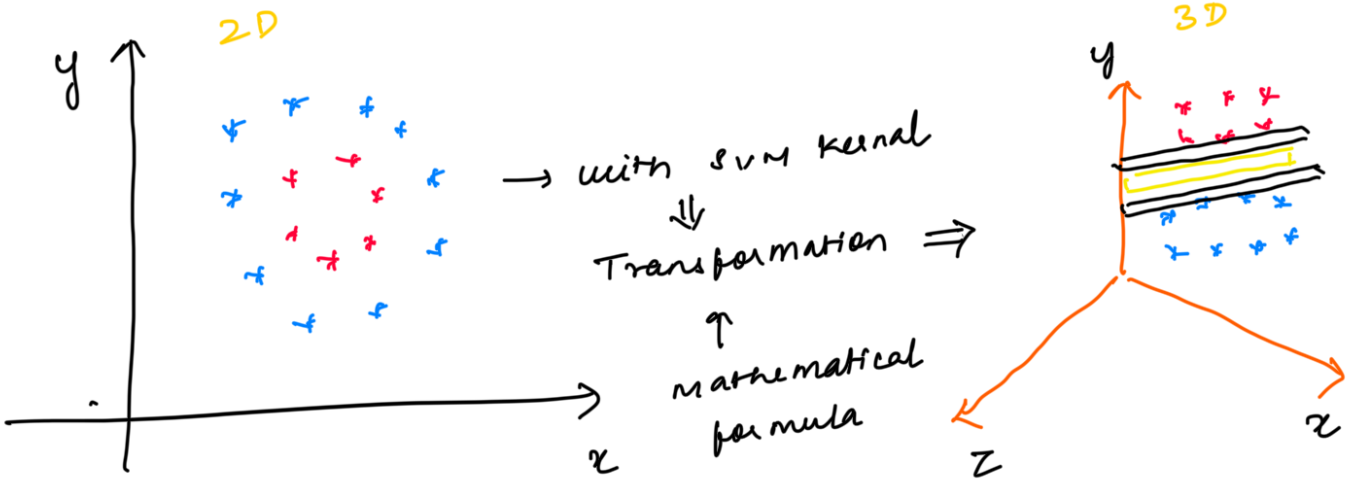



→ This specific case is linear SVC, as we are creating a straight line along with the marginal plane.




→ For this case, Linear SVC will not work, as the datapoints are over lapped., as the result my accuracy score will goes down if am using Linear svc model.

If the data points are not linearly seperable, in such case we can use, SVM Kernals.




In this way accuracy will

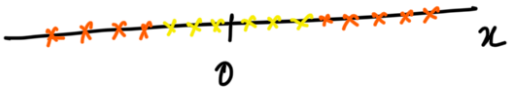
→ Best fit line

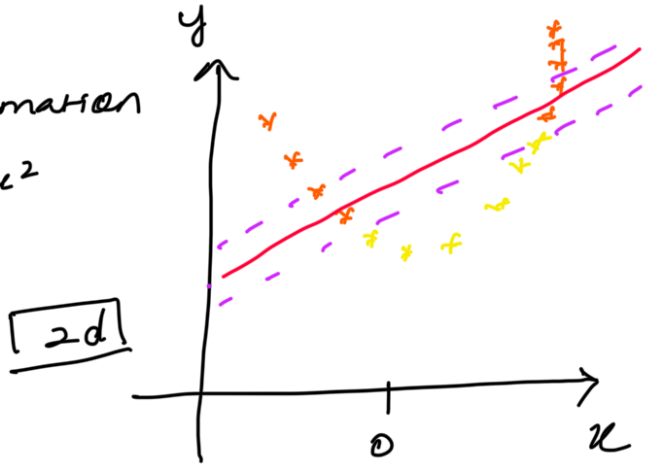
→ marginal plane.

be high.

Dataset. 1d

Linear SVC ⟹ Transformation $y = x^2$




2d

with this transformation accuracy increases

Types of kernel

1. polynomial kernel
2. RBF kernel
3. sigmoid kernel.