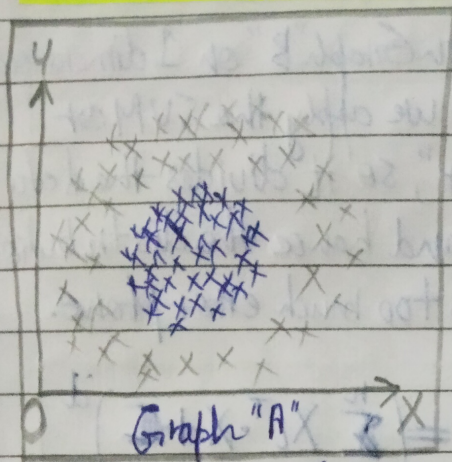


## Kernels Trick in SVM....

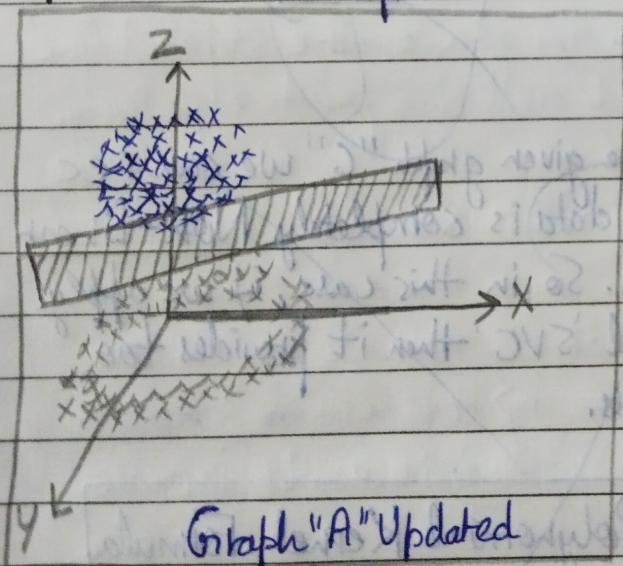


Graph "A"  
2 Dimensional Graph.

- As per the Graph "A" given, in this the data is properly Non-Linear.
- So, in this if we apply the SVM, the error is increased or the distribution line is too much error included.

Therefore, to solve this problem "Kernels" are used.

Kernel function  $\Rightarrow$  The Kernel function generally transforms the 2 Dimensional data into 3-dimensional data. So, that the plane is used to distribute the data.



Graph "A" Updated  
3 Dimensional Graph

- As, we can see that after applying Kernel trick on 2 dimensional data, basically applied the "rbf" [Radial Basis Function]. Which divided the data points or classified the data points perfectly.