Gift This Course

A-Z Machine Learning using Azure Machine Learning (AzureML)

Hands on AzureML: From Azure Machine Learning Introduction to Advance Machine Learning Algorithms. No Coding Required.

BEST SELLER ★★★★★ 4.3 (215 ratings) 1,597 students enrolled

Created by Jitesh Khurkhuriya Last updated 3/2018 English English

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Classification

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Support Vector Machine

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What is SVM?

- Supervised Learning Algorithm
- Can be used for both Regression as well as Classification
- Mostly used for classification
- The observations are separated by a hyperplane in the space

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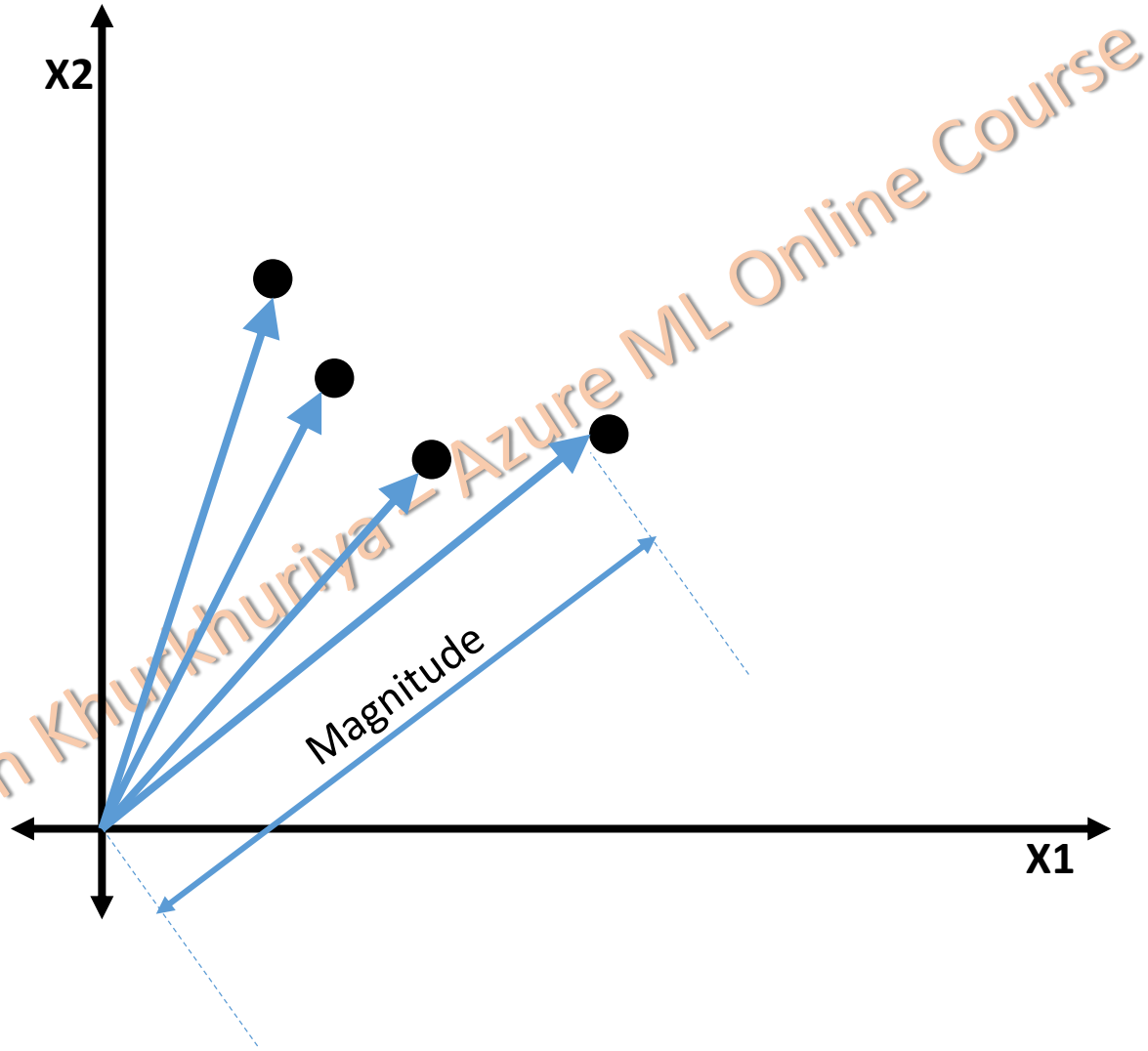
Vectors



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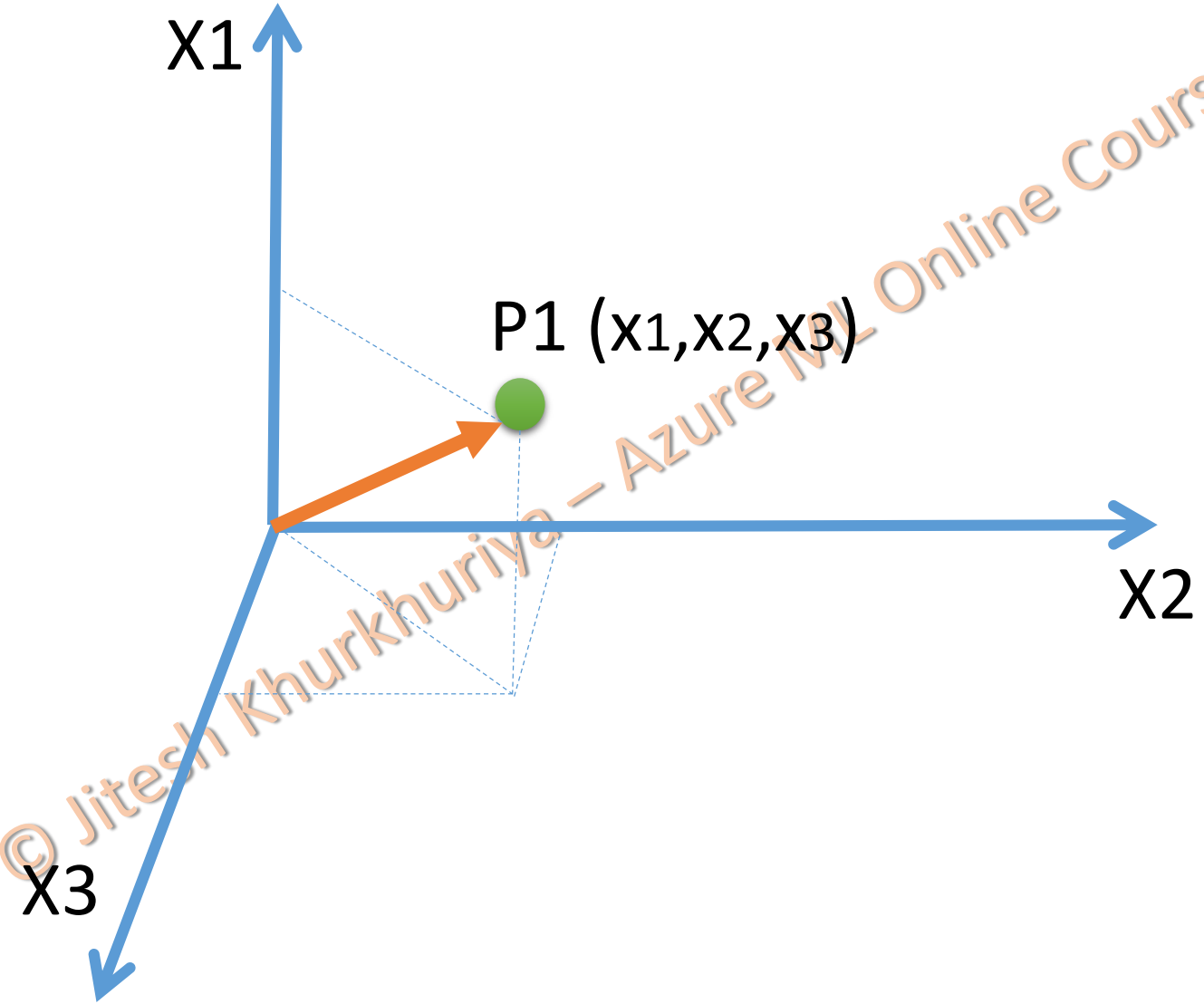
Vectors



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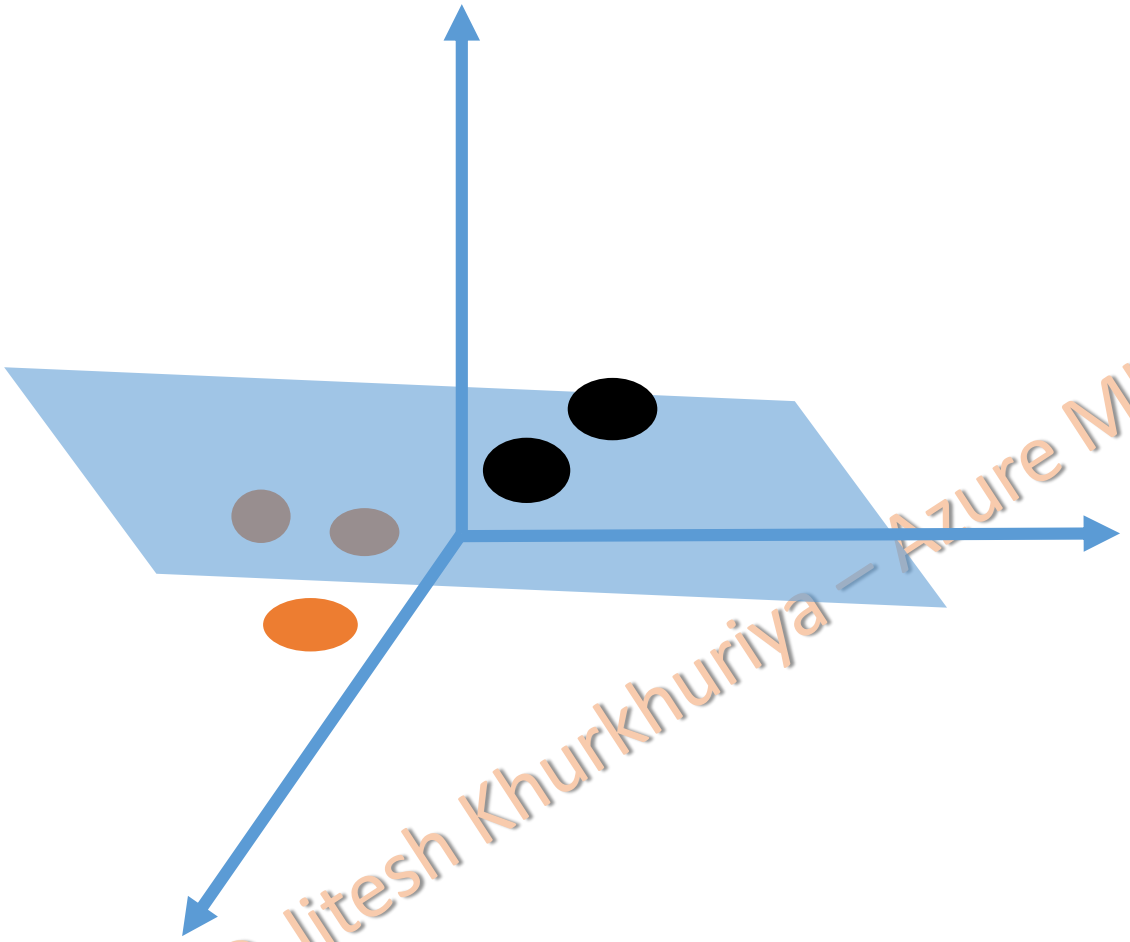
Hyperplane



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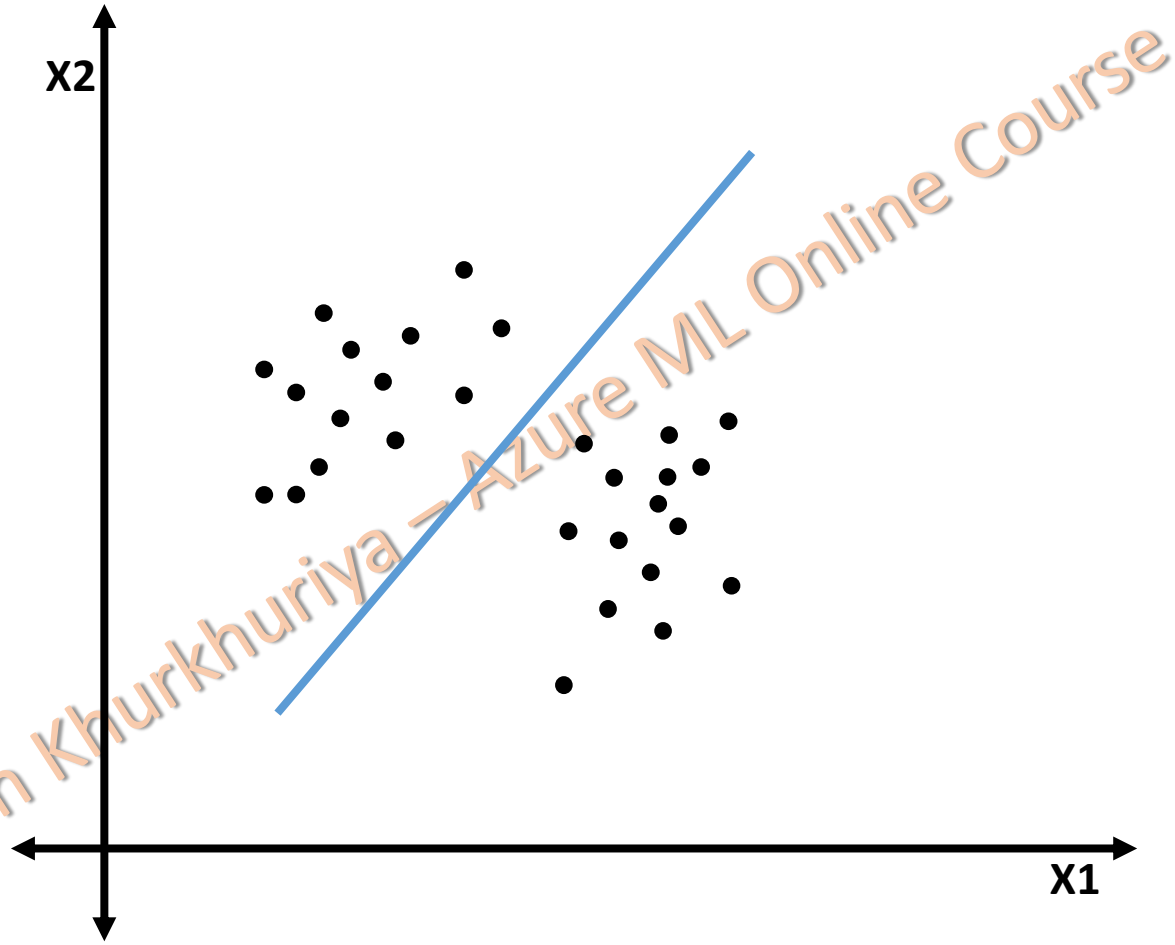
Hyperplane



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A hyperplane separates the two classes.

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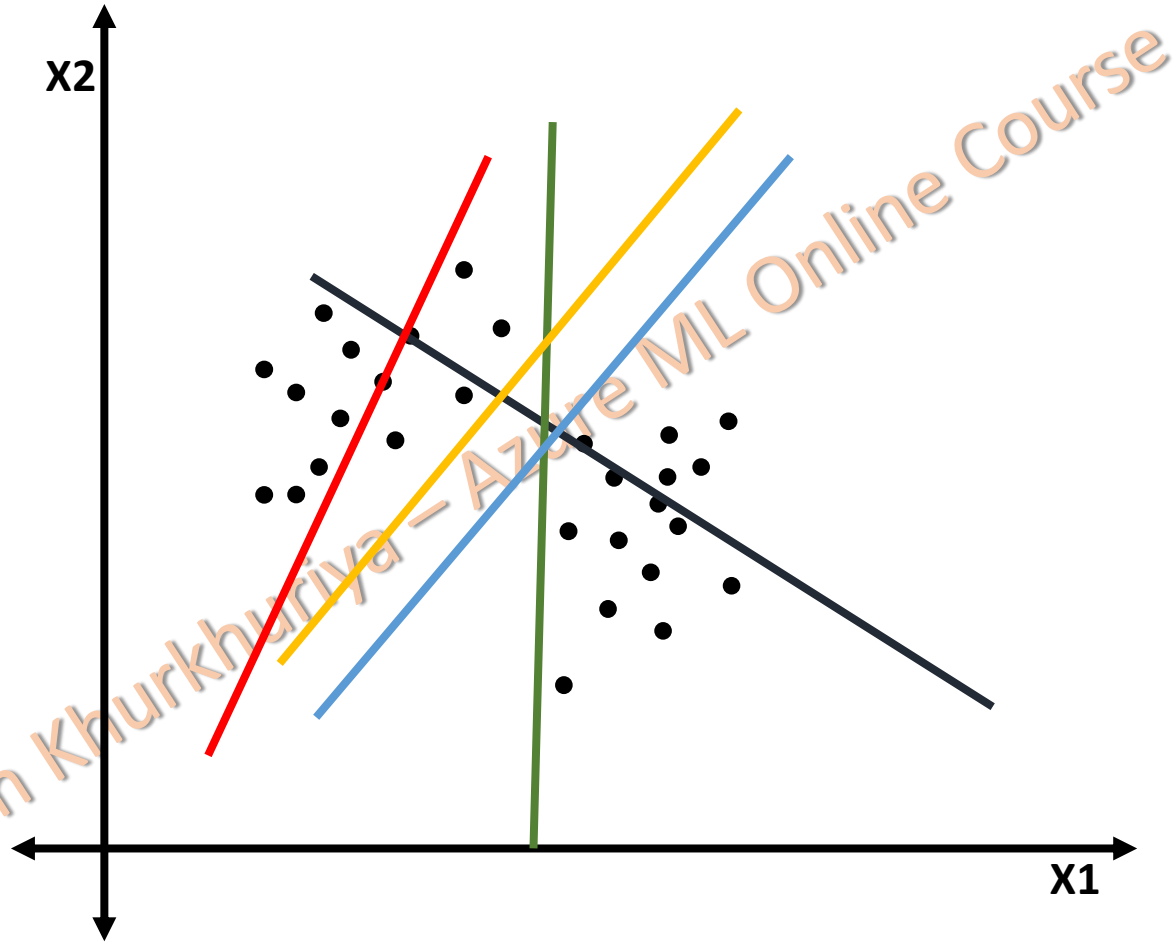
Choosing a Hyperplane



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Select a hyperplane that separates the two classes.

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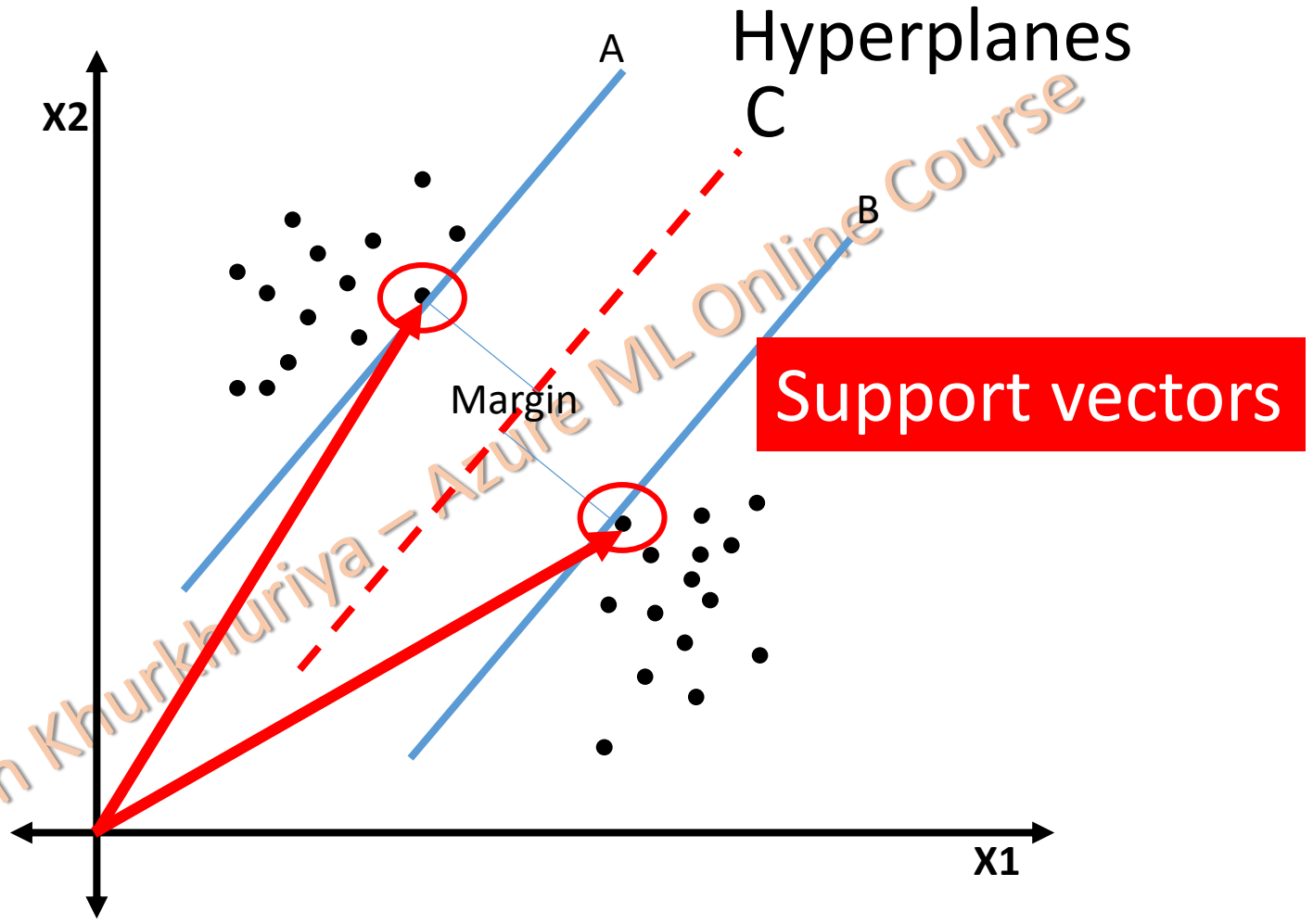
Select the right hyperplane



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Margin is maximum distance between the nearest data points and the hyperplane.

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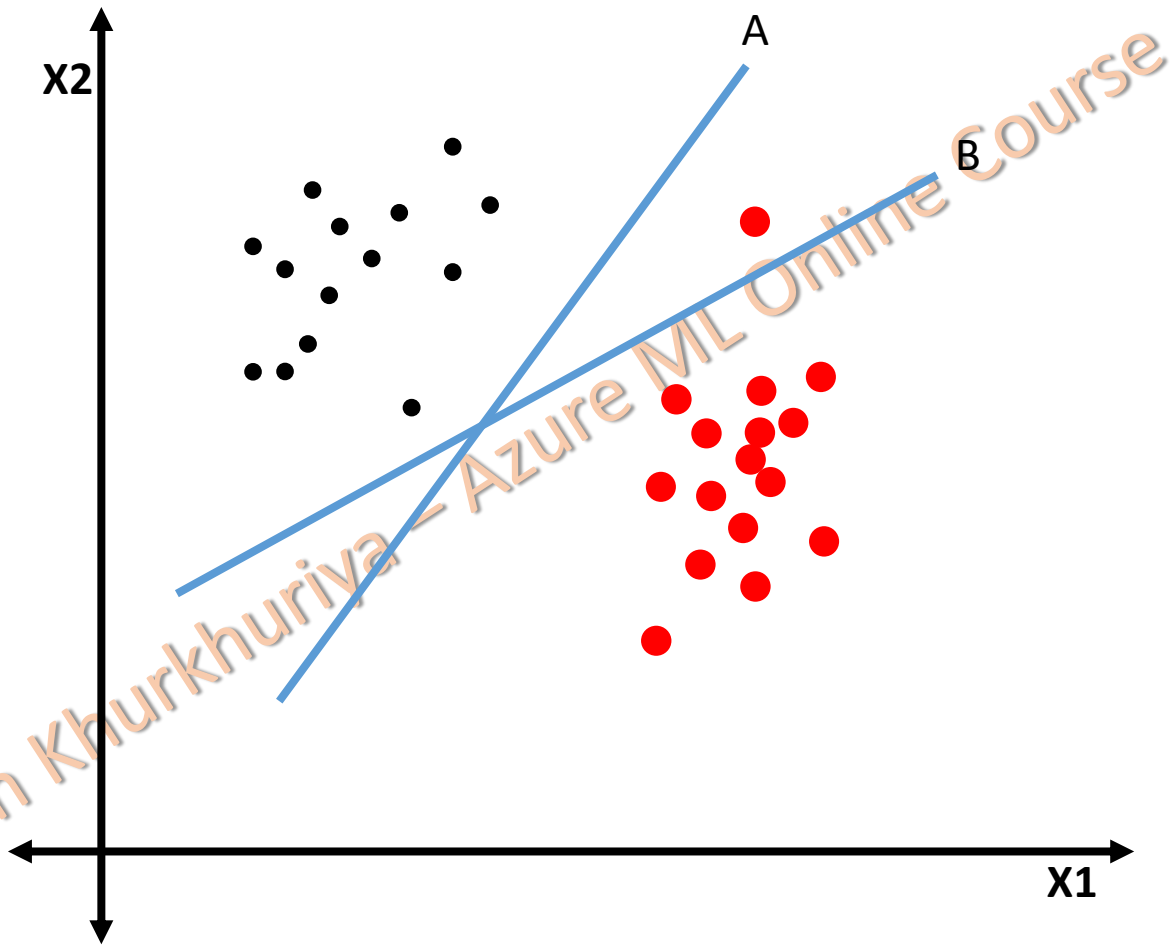
What comes first?



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Identifying the accurate classes comes first before margin calculation.

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Two-Class SVM using Azure ML

- Create Trainer Mode
  - Single Parameter – accepts a specific set of values
  - Parameter Range – Finds optimal parameter when used with Hyper Parameter Tuning
- Number of Iterations
- Lambda – Value to use for L1 Regularisation. Larger value penalises the model
- Normalize Features – Training data sets are centred at the mean and scaled to have one unit of standard deviation
- Project to the unit sphere – to normalize the coefficients
- Random Number Seed – any integer value for reproducing the results
- Allow unknown category - Creates a group for unknown values in the training or validation sets.

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Thank You…!

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