

## In-Class-6

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1. Which Python SVM method (i.e., LinearSVC, SVC, or NuSVC) would be the best to use, and why?

Figure 1a – For this, data can be separated using a straight line, so we use Linear SVC or SVC/NuSVC with linear kernel.

Figure 1b – For this, data cannot be separated with a straight line, so we use SVC or NuSVC with non-linear kernel.

2. Write the rule set for this credit card application approval Decision Tree

R1: If (age < 30) and (student == 'no') Then y = no

R2: If (age < 30) and (student == 'yes') Then y = yes

R3: If (age >= 30 and <= 40) Then y = yes

R4: If (age > 40) and (credit\_rating == 'excellent') Then y = yes

R5: If (age > 40) and (credit\_rating == 'fair') Then y= no

3. Create a Decision Tree classifier for the training data

