

Decision Trees

Learning Objective:

- To develop a common understanding of the week's topics through a collaborative and interactive flipped classroom session.

Agenda of the session:

- Gauging learner's understanding on the topic of the week.
- Understanding the concepts clarity of the learners on:
 - Decision Trees as a supervised learning algorithm.
 - Visualizing a tree, Gini index, Entropy, Pruning.
- Case Studies (Hands on) on the topics mentioned.
- Doubts clearing, industry perspective and practices.
- Summarize of the session's learning.

Structure of the Session

Duration	Topic	Details
10 min	<ul style="list-style-type: none"> • Gauge learner's understanding on Hierarchical Clustering and PCA 	<ul style="list-style-type: none"> • Go through all the learners in the group and try to understand the reach of the week's learning within the groups. • Highlight the important concepts majority of the group is facing doubts on.
20 min	<ul style="list-style-type: none"> • Concepts clarity of the covered topics. 	<ul style="list-style-type: none"> • Clarify the concepts on the doubts identified.
60 min	<ul style="list-style-type: none"> • Case Study: Decision trees Wine data 	<ul style="list-style-type: none"> • Use the case study provided to have a hands on exercise. Explain the problem statement, features and data preprocessing and use various techniques to come to a result through the model
25 min	<ul style="list-style-type: none"> • Doubts clearance • Industry perspective on the mentioned topics 	<ul style="list-style-type: none"> • Use this time to clarify additional doubts. • Also, explain the industry practices on the techniques as per your experience.
5 min	<ul style="list-style-type: none"> • Summarize the session 	<ul style="list-style-type: none"> • Provide a summary of the session.