

Week 1: Decision Tree

(Total video duration is nearly 1 hour 8 mins. You will be required to spend 55 - 65 minutes/day along with practicing datasets and quizzes)

“The basic Psychology of Ensemble approach can be observed routinely in our daily lives, where we ask the opinions of several experts before making a decision. In any case, a final decision is made by combining the individual decisions of several experts. In doing so, the primary goal is to minimize the happening of the unfortunate. Therefore to address the preliminary question of Model Selection which is "what is the most appropriate classifier/prediction algorithm for a given problem?" Ensemble Methods has played a key role in mitigating the risk of unfortunate”.

Learning Outcomes from Week-1:

Decision Tree Classifier

Gini Index

Pruning

Mentor Session Duration:
2 hours

Faculty Name:
Dr. Kumar Muthuraman

No. of videos:
7

S.no	Video Name	Duration of the video(min)	Conceptual or Hands On
1.1	Introduction to Decision Trees	1.08	Conceptual
1.2	Decision tree - CART	19.27	Conceptual
1.3	CART - Example	14.26	Conceptual
1.4	Pruning	13.02	Conceptual
1.5	Hands On - Decision Trees	20.02	Conceptual + Hands on

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Few textbooks that you can refer to:

<https://jakevdp.github.io/PythonDataScienceHandbook/>

Python Machine Learning by Sebastian Raschka and Vahid Mirjalili

The Elements of Statistical Learning

Approaching Any Machine Learning problem by Abhishek Thakur