**Cloud Computing for Data Analysis**

**VIDEO CASE 09 : Decision Trees**

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Watch following videos:

**Video 1:** <https://youtu.be/RG4FYHfAQJQ>

**Video Case Questions:**

1. What are the purposes of decision trees?
2. - The main purpose of the decision tree is to create a model that predicts the value of the target variable by learning the decision rules.

* Decision trees are supervised learning method that can be used mainly for classification and regression type problems.
* It is used to simplify complex challenges and evaluate the cost-effectiveness of research and business decisions which is more effective than other methods.
* Allow us to analyze fully the possible consequences of a decision.

1. What are some disadvantages that you see in decision trees when built for larger datasets?
2. - It requires more memory compared to other approaches because of its structure.

* Complexity of the tree increases as the size of the data set increases.
* Statistical and domain knowledge is required to design, analyze and understand decision trees.
* It’s not efficient for large datasets as computation of the gain value, entropy becomes complex and splitting becomes difficult.

1. Mention some other applications of decision trees.
2. - Financial domain. Eg: Fraud detection.

* Sentiment Analysers
* E-commerce sector. Eg: when to launch an product based on the factors.
* Health care. Eg: predicting a disease bases on the occurrence of symptoms.