**NAME: SHIVA SAI PRANEETH CHAKINALA**

**ID: 801147603**

**Cloud Computing for Data Analysis**

**VIDEO CASE 09: Decision Trees**

Watch following videos:

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

**Video Case Questions:**

1. What are the purposes of decision trees?

ANS)

-The decision tree is used to create a model which can predict the value of the target variable by learning the decision rules. These rules are basically inferred from the data features.

-The decision trees are also a supervised learning method that can be used for classification and regression.

-The decision trees can also be used to identify the feature importance.

1. What are some disadvantages that you see in decision trees when built for larger datasets?

ANS) The disadvantages of decision trees are

- The concept of overfitting which may occur due to the large datasets and is considered a cardinal sin in terms of the analytics.

- The tree structure is prone to the sampling which may not produce great results.

- The decision trees are sensitive to any changes made in the process.

- The decision tree is memory intensive.

- The calculations get very complex if the values are uncertain and if many outcomes are linked to each other.

1. Mention some other applications of decision trees.

ANS) Some of the decision tree applications are:

* It is used to determine the species of an animal.
* It is used in operation research.
* It helps in predicting the library book use.
* It improves the customer satisfaction rate.