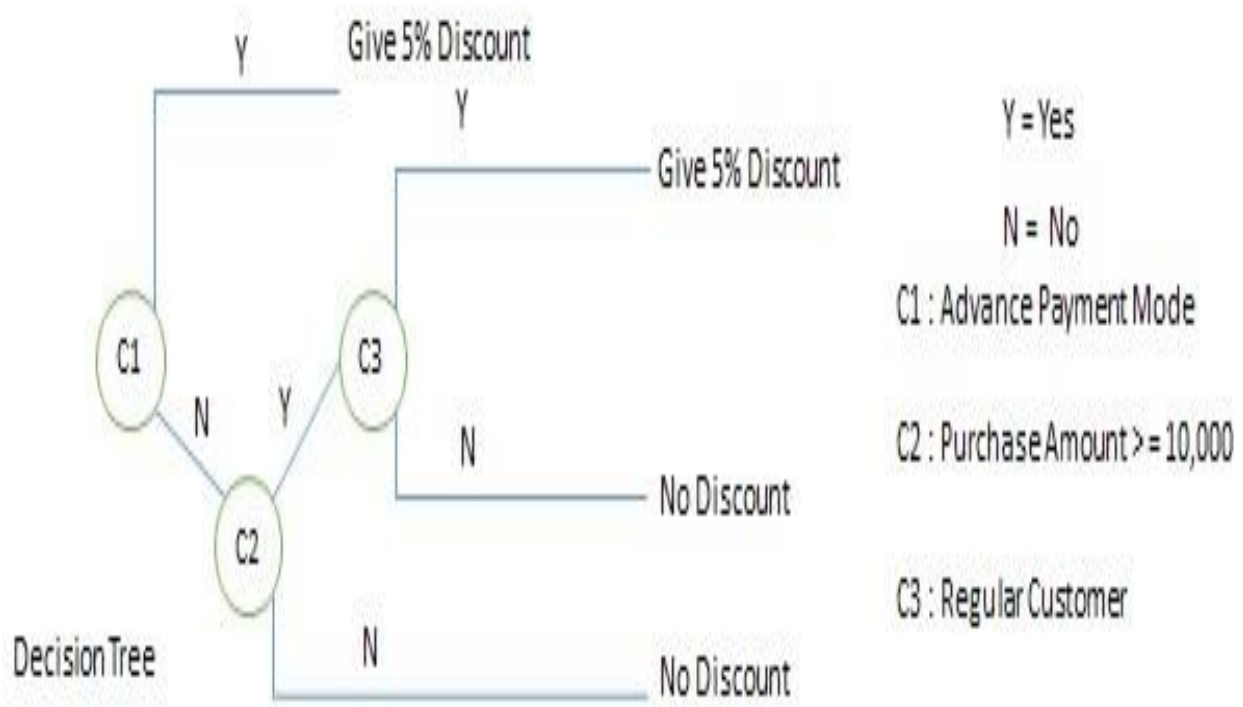


Decision Tree

A **Decision Tree** is a graphical representation used to make decisions or predictions. It is structured like a tree, where each node represents a question or decision based on a feature, each branch represents an outcome, and the leaf nodes represent the final result or decision. (a class label in classification or a numerical value in regression).



Decision Table

- ☐ It is a matrix containing row or columns for defining a problem and the actions.
- ☒ **Components of a Decision Table:**
 - ☒ **Condition Stub** – It is in the upper left quadrant which lists all the condition to be checked.
 - ☒ **Action Stub** – It is in the lower left quadrant which outlines all the action to be carried out to meet such condition.
 - ☒ **Condition Entry** – It is in upper right quadrant which provides answers to questions asked in condition stub quadrant.

- ❑ **Action Entry** – It is in lower right quadrant which indicates the appropriate action resulting from the answers to the conditions in the condition entry quadrant.

CONDITIONS	Rule 1	Rule 2	Rule 3	Rule 4
Advance payment made	Y	N	N	N
Purchase amount = Rs 10,000/-	-	Y	Y	N
Regular Customer	-	Y	N	-
ACTIONS				
Give 5% discount	X	X	-	-
Give no discount	-	-	X	X

- Y shows the existence of a condition.
- N represents the condition, which is not satisfied.
- A blank - against action states it is to be ignored.
- X (or a check mark will do) against action states it is to be carried out.