

Aim:

To write a program to demonstrate the working of the decision tree based ID3 algorithm. To use an appropriate dataset for building the decision tree and apply this knowledge to classify a new example.

Algorithm:

1. Import all required libraries (pandas, math, numpy).
2. Read data using read_csv() function.
3. Remove the target from the data & store the attributes in a separate variable.
4. Create a class named node with 4 members - 'Children', 'value', 'isleaf' and 'pred'.
5. Define a function called entropy to find the entropy of the dataset.
6. Define a function named printTree to draw the decision tree.
7. Finally, call the ID3 print Tree function to obtain the decision tree.
8. END