

In addition to training and testing on a dataset, your program should accept a sample from the user and predict its class label using the trained model.

To perform this, you should pass an additional command-line parameter containing the name of the dataset. Based on this dataset name, your program should prompt the user to input values for each attribute in the correct order.

Requirements

- Take an additional command-line argument indicating the dataset name (e.g., `--dataset car`).
- After training the model, prompt the user to enter a value for each attribute, one by one.
- Once all attribute values are entered, output:
 - The predicted class label for the input instance.
 - The depth of the tree node (starting from 0 at the root) where the decision (i.e., leaf node) was made.
- Additionally, when we ask to prune a tree at a specific depth, report how many nodes have been pruned.

Example

If the dataset is `iris.data`, and it has the following attributes:

`sepal length, sepal width, petal length, petal width`

Your program should prompt the user:

```
Enter value for sepal length:
Enter value for sepal width:
Enter value for petal length:
Enter value for petal width:
```

After the user inputs all fields, your model should output something like:

```
Predicted class: Iris-versicolor
Depth: 3
```

You may assume that the user inputs valid values in the correct order.