

# sl-decision-tree-algorithm-1

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#Project Title Prediction of iris.csv datasetfor decision tree algorithm using supervised learning machine algorithm

#Problem Statement A american based botinical gardens grow iris flower in their labs but using biotechnology in a single tree different type of variety flowers is grow. Find out as data science engineer how much accuracy is there all category same species.

#Conclusion According to my decision my accuracy would be 1%

```
[1]: from sklearn.datasets import load_iris
      from sklearn.model_selection import train_test_split
      from sklearn.tree import DecisionTreeClassifier
      from sklearn.metrics import accuracy_score
```

```
[2]: # Load the Iris dataset
      iris = load_iris()
      X = iris.data
      y = iris.target
```

```
[3]: # Split the dataset into training and testing sets
      X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2,
      ↪random_state=42)
```

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[4]: # Create a Decision Tree classifier
      decision_tree = DecisionTreeClassifier()
```

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[5]: # Train the classifier on the training data
      decision_tree.fit(X_train, y_train)
```

```
[5]: DecisionTreeClassifier()
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[6]: # Make predictions on the test data
      y_pred = decision_tree.predict(X_test)
```

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[ ]:
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[7]: # Calculate accuracy
accuracy = accuracy_score(y_test, y_pred)
print(f"Accuracy: {accuracy:.2f}")
```

Accuracy: 1.00

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[ ]:
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