

sl-decision-tree2-algorithm

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###PROJECT TITLE:predection of iris.csv dataset for decesion tree alogrithm using super-
vised learning machine alogrithm

####PROBLEM STATEMENT:A American based botinical garden a grow ice flower in their
labsbut using bio technology in a single treedifferent type of verity flower is grow.as a datascience
engineer find out how much accuracy is thereall categories contains same species

```
[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)

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

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

[5]: DecisionTreeClassifier()

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

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

Accuracy: 1.00

[]:

###**CONCLUSION**:According to my model Decesion Tree is succesfully completed in supervised learning machine learning with accuracy of 1