sl-decision-tree-algorithm-1

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#Project title PREDICTION OF IRIS.CSV DATASET FOR DECISION TREE ALGORITHM USING SUPERVISED LEARNING MACHINE ALGORITHM

#Project statment A American based botnical gardens a grow iris flowers in their lab but using bio technology in a single tree different types of variety flower is grow.as a datascience engineer how much accuracy is there all categories contains same species

#conclusion according to my decision my accuracy would be 1%

```python
[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
```

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

```python
[ ]: # 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)
```

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

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

```python
[ ]: DecisionTreeClassifier()
```

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

```python
[ ]:
```

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

Accuracy: 1.00