sl-random-forest-1-1

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##Project Title: ### Classifer the Random_Forest algorithm using skit.learn classifier("RndomForestClassifier") for iris.csv.And predict the data how many species are interconnect with nth Decision Tree node.

0.0.5 Task 1:

0.0.6 Import the RandomForestClassifier by using sklearn.ensemble library.

0.0.7 Task 2:

0.0.8 Load your data using Seaborn Graphics library as a argument Load_iris().

0.0.9 Task 3:

0.0.10 Preprocess the data using skitlearn graphics library.

0.0.11 task 4:

0.0.12 Select the model using"model_selection" from sns as a seaborn and sklearn as a sklearn machine learning library.

0.0.13 Task 5:

0.0.14 Load iris.csv dataset for data as a input variable and target as the functionable output variable.

0.0.15 Task 6:

0.0.16 Pick the train and test data using argumental library train_test_split.

0.0.17 Task 7:

0.0.18 Select the estimators as a nth Decision tree.

0.0.19 Task 8:

0.0.20 Use a RandomForestClassifier and fit your model.

0.0.21 Task:

0.0.22 Find out your accuracy model

[3]:
```
# Load the Iris dataset
iris = load_iris()
X = iris.data
y = iris.target
```

[4]:
```
# 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)
```

[5]:
```
# Create a Random Forest classifier with 100 trees
random_forest = RandomForestClassifier(n_estimators=100)
```

[6]:
```
# Train the classifier on the training data
random_forest.fit(X_train, y_train)
```

[6]:
```
RandomForestClassifier()
```

[7]:
```
# Make predictions on the test data
y_pred = random_forest.predict(X_test)
```

[8]:
```
# Calculate accuracy
accuracy = accuracy_score(y_test, y_pred)
print(f"Accuracy: {accuracy:.2f}")
```

```
Accuracy: 1.00
```

[8]:
```

```

[2]:
```
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import accuracy_score
```

0.0.23 Conclusion:

###My model as approach 1.00 accuray,which is lies between in the range of 0-1.Hence it is shows that RandomForest Decision model successfully implement

[ ]:
```

```