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Project Title:

Using the support Vector machine algorithm of supervised machine learning, predict iris.csv dataset to find out species willl be same or different to find out

Problem Statement:

A American based botonical garden grow iris flower in there labs but using bio technology in a single tree diffferent type of variety flower is grow.

As a data science enginer to find out how much accuracy is there all category contains same species.

TASK-1

Pre process the data skit.learn library

TASK-2

Load the data using sklearn model selection using default argument

TASK-3

On the bases of the dataset tain test and split SPM model

TASK-4

Impliment support vector machanisum classifier using SVM_ classifier.The SVM must be "Linear"

TASK-5

Train the classifier on the training data

TASK-6

Find out the prediction value on the test data

TASK-7

Test the model with the help of accuracy, accuracy should be lie

```
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.svm import SVC
from sklearn.metrics import accuracy_score


# Load the Iris dataset
iris = load_iris()
X = iris.data
y = iris.target


# Consider only two classes for simplicity
X = X[y != 2]
y = y[y != 2]


# 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)



# Create an SVM classifier
svm_classifier = SVC(kernel='linear')



# Train the classifier on the training data
```

```
svm_classifier.fit(X_train, y_train)
```

```
SVC
SVC(kernel='linear')
```

```
# Make predictions on the test data
y_pred = svm_classifier.predict(X_test)
```

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

```
Accuracy: 1.00
```

Conclusion:

According to my support vector mechanisum model the species are linear with the accuracy of 1.00

Hence proves model was successfully implement