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#CSE-DS

```
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
```

#PROJECT TITLE Using the support vector algorithm of supervised Machine learning,predict "iris.csv" dataset to find out species or different

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

#TASK 1 :Preprocess the data in skitlearn library

#TASK 2:Load the data using sklearn model selecetion default argument

#TASK 3:On the basis of your data train_test_spilt your "SVM model"

#TASK 4:Implement the support vector mechanism classifer using svm_classifer ,thesvm must be "Linear"

#TASK 5: Train the classifer on the training data

#TASK 6:Find out the prediction value on the test data

#TASK 7:Test the model with help of accuracy,accuracy should be lie in the range of 0 to 1

```
# 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(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 mechanism model the species are Linear.With the accuracy of "1.00" Hence proved model was successfully implemented

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```