EX. NO: 12

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SIMPLE PROGRAM IN SUPPORT VECTOR MACHINE

AIM :

To Create a simple program in Support Vector Machine in Python.

ALGORITHM:

1. Import the necessary libraries.
2. Load and preprocess the data.
3. Build the SVM model.
4. Compile the model.
5. Train the model.
6. Evaluate the model.

PROGRAM:

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

iris = datasets.load_iris()
X = iris.data
y = iris.target


X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=42)
clf = SVC(kernel='linear', C=1)
clf.fit(X_train, y_train)
```

```
y_pred = clf.predict(X_test)
accuracy = accuracy_score(y_test, y_pred)
print(f'Accuracy: {accuracy:.2f}')
```

OUTPUT:

Accuracy : 1.00

RESULT :

This program is executed successfully.