SvMaa

```python
# Step 0: Import the necessary libraries

import numpy as np

import matplotlib.pyplot as plt

from sklearn.datasets import make_classification

from sklearn.model_selection import train_test_split

from sklearn.preprocessing import StandardScaler

from sklearn.svm import SVC


# Step 1: Dataset

X, y = make_classification(n_samples=100,n_features=2,
n_redundant=0, n_clusters_per_class=1, flip_y=0.1,
random_state=0)


# Step 2: Split the dataset into training and testingsets

X_train, X_test, y_train, y_test = train_test_split(X, y,
test_size=0.2, random_state=42)


# Step 3: Preprocess the dataset by scaling thefeatures

scaler = StandardScaler()

X_train_scaled = scaler.fit_transform(X_train)

X_test_scaled = scaler.transform(X_test)


# Step 4: Initialize the linear SVM classifier

clf = SVC(kernel='linear', C=1.0)


# Step 5: Train the classifier with the training data

clf.fit(X_train_scaled, y_train)


# Step 6: Plot the decision boundary
```