19)To verify Support Vector Machine

import numpy as np

import pandas as pd

# Importing the dataset

dataset = pd.read\_csv('/content/breastcancer.csv')

X = dataset.iloc[:, :-1].values

y = dataset.iloc[:, -1].values

# Splitting the dataset into the Training set and Test set

from sklearn.model\_selection import train\_test\_split

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.25, random\_state=51)

# Feature Scaling

from sklearn.preprocessing import StandardScaler

sc = StandardScaler()

X\_train = sc.fit\_transform(X\_train)

X\_test = sc.transform(X\_test)

# Training the SVM model on the Training set

from sklearn.svm import SVC

classifier = SVC(kernel='linear', random\_state=12)

classifier.fit(X\_train, y\_train)

# Predicting the Test set results

y\_pred = classifier.predict(X\_test)

# Evaluating the performance of the model using confusion matrix and accuracy

from sklearn.metrics import confusion\_matrix, accuracy\_score

cm = confusion\_matrix(y\_test, y\_pred)

print(cm)

print('Accuracy: {:.2f}%'.format(accuracy\_score(y\_test, y\_pred) \* 100))

Result:

[[104 2]

[ 1 64]]

Accuracy: 98.25%