```
# -*- coding: utf-8 -*-
"""LAB_ASSIGNMENT_07.ipynb

Automatically generated by Colaboratory.

Original file is located at
    https://colab.research.google.com/drive/1k3R-yqvj3nf8T0gAcMIoZ6vjwaJuQGNC

Develop a program to implement Naive Bayes classifier model and analyze the model using confusion matrix
"""

import pandas as pd
import numpy as np
import seaborn as sn
import matplotlib.pyplot as plt
from sklearn import metrics
from sklearn.naive_bayes import GaussianNB

iris_df = pd.read_csv('Iris_data_sample.csv',header =None)
iris_df.info()

iris_df = iris_df.replace(to_replace =['??', '###'],value =None)
iris_df.dropna(axis = 0, how='any',inplace = True)
iris_df.info()
iris_df.iloc[:,5].value_counts()

X_features = iris_df.iloc[:,1:5]
X_features

Y_features = iris_df.iloc[:,5]
Y_features

model = GaussianNB()
model.fit(X_features, Y_features)

expected = Y_features
predicted = model.predict(X_features)

from sklearn import metrics
# Model Accuracy, how often is the classifier correct?
print("Accuracy:",metrics.accuracy_score(expected, predicted))

print(metrics.confusion_matrix(expected, predicted))

print(metrics.classification_report(expected, predicted))
```