ICP5

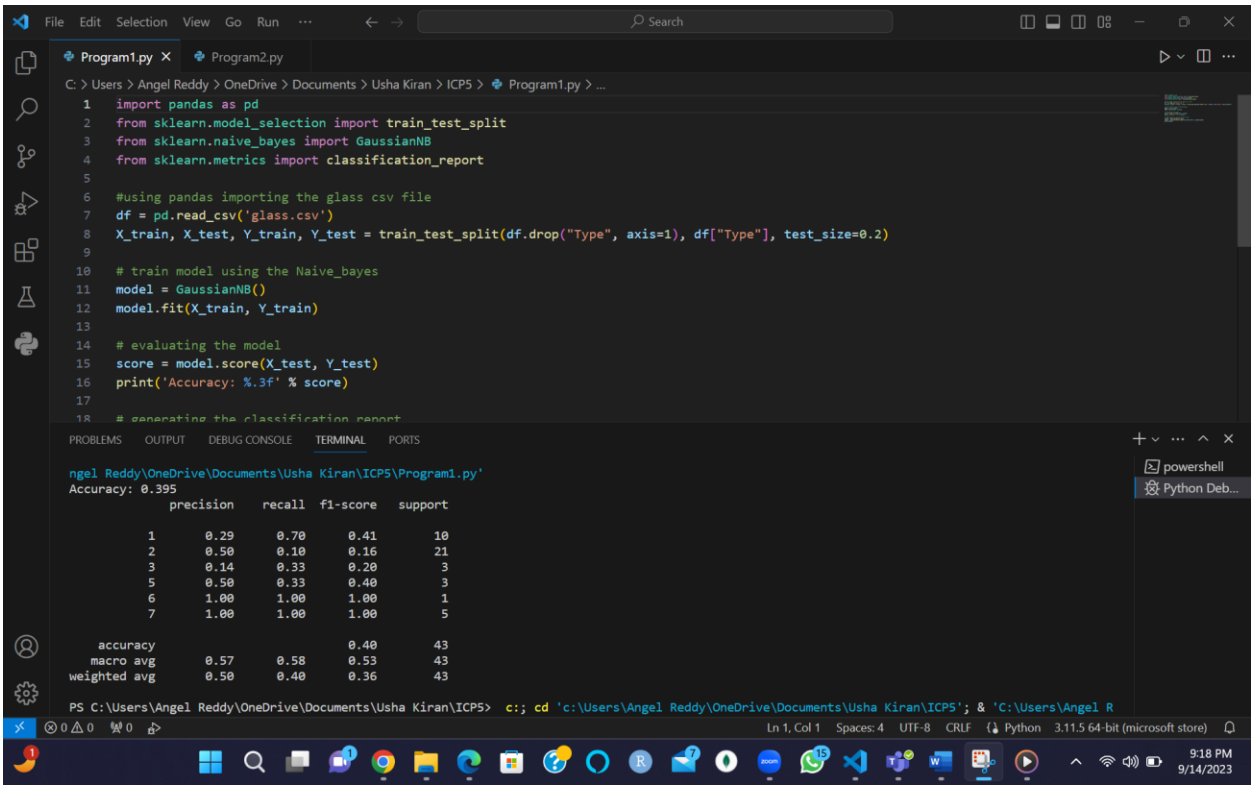
UshaKiran Yadav Avula

700746114

Program1:

```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.naive_bayes import GaussianNB
from sklearn.metrics import classification_report

#using pandas importing the glass csv file
df = pd.read_csv('glass.csv')
X_train, X_test, Y_train, Y_test = train_test_split(df.drop("Type", axis=1),
df["Type"], test_size=0.2)

# train model using the Naive_bayes
model = GaussianNB()
model.fit(X_train, Y_train)

# evaluating the model
score = model.score(X_test, Y_test)
print('Accuracy: %.3f' % score)

# generating the classification report
y_pred = model.predict(X_test)
report = classification_report(y_true=Y_test, y_pred=y_pred)
print(report)
```

Output:

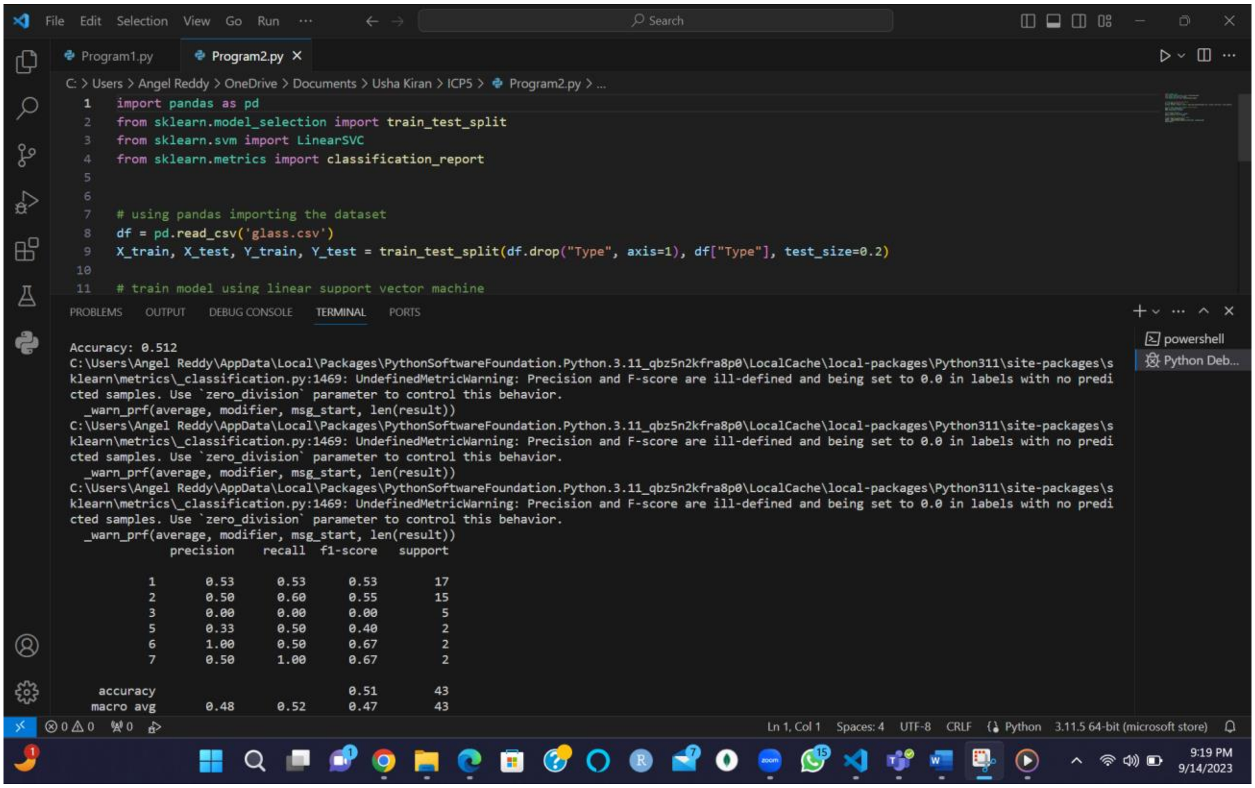


Program2:

```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.svm import LinearSVC
from sklearn.metrics import classification_report


# using pandas importing the dataset
df = pd.read_csv('glass.csv')
X_train, X_test, Y_train, Y_test = train_test_split(df.drop("Type", axis=1),
df["Type"], test_size=0.2)

# train model using linear support vector machine
model = LinearSVC(dual=False)
model.fit(X_train, Y_train)

# evaluating the model
score = model.score(X_test, Y_test)
print('Accuracy: %.3f' % score)

# generating the classification report
y_pred = model.predict(X_test)
```

```
report = classification_report(y_true=Y_test, y_pred=y_pred)
print(report)
```

Output:



GitHub: