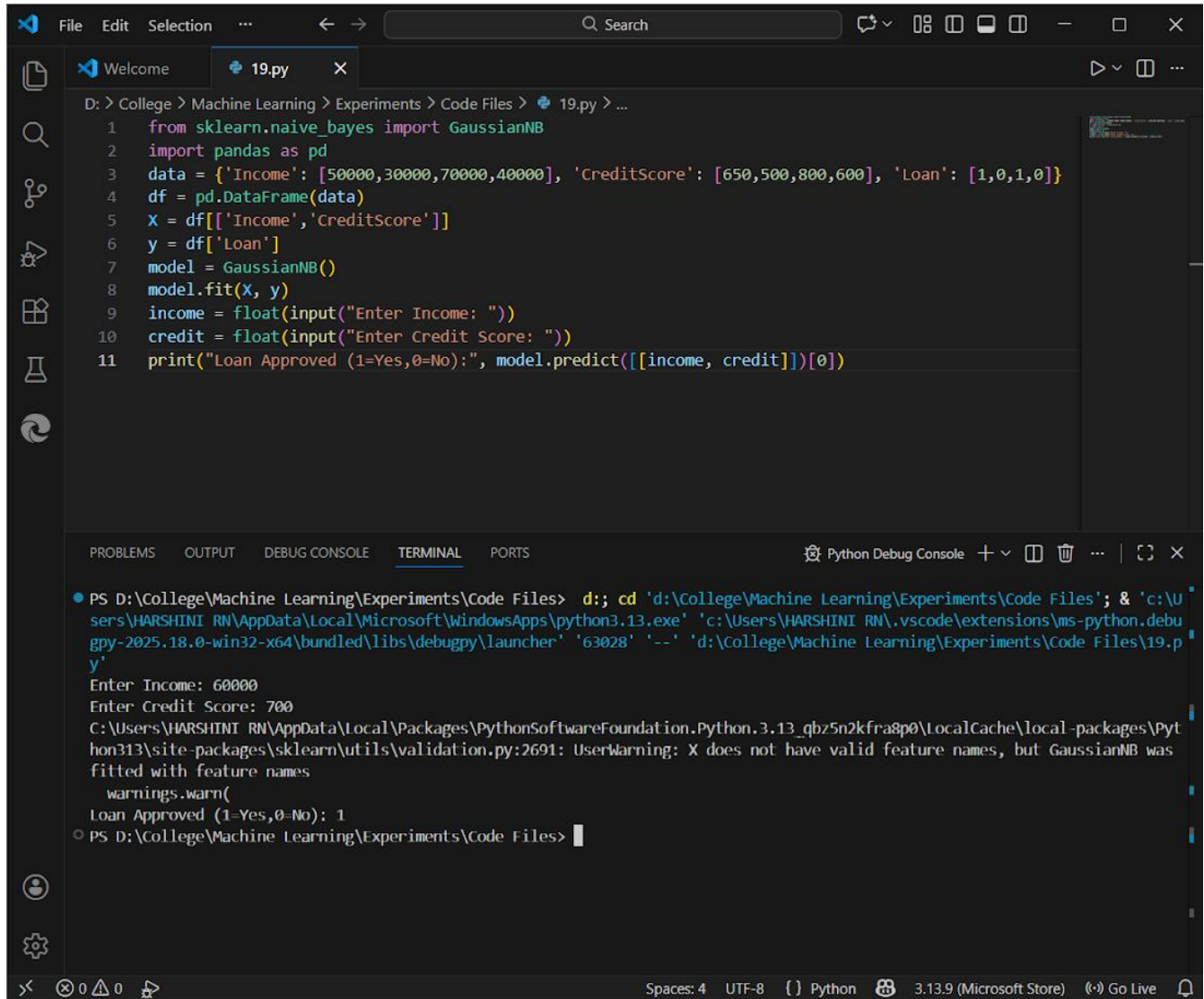


## EXPERIMENT – 19

### OUTPUT:



The image shows a Visual Studio Code editor window with a Python file named `19.py`. The script uses `sklearn.naive_bayes` to create a `GaussianNB` model. It defines a dataset with 'Income' and 'CreditScore' features and a 'Loan' target. The model is trained on this data. The script then takes user input for 'Income' and 'Credit Score' and prints the predicted loan status.

```
1 from sklearn.naive_bayes import GaussianNB
2 import pandas as pd
3 data = {'Income': [50000, 30000, 70000, 40000], 'CreditScore': [650, 500, 800, 600], 'Loan': [1, 0, 1, 0]}
4 df = pd.DataFrame(data)
5 X = df[['Income', 'CreditScore']]
6 y = df['Loan']
7 model = GaussianNB()
8 model.fit(X, y)
9 income = float(input("Enter Income: "))
10 credit = float(input("Enter Credit Score: "))
11 print("Loan Approved (1=Yes,0=No):", model.predict([[income, credit]])[0])
```

The terminal output shows the execution of the script. It prompts for 'Enter Income: 60000' and 'Enter Credit Score: 700'. A warning message is displayed: 'UserWarning: X does not have valid feature names, but GaussianNB was fitted with feature names'. The final output is 'Loan Approved (1=Yes,0=No): 1'.

```
PS D:\College\Machine Learning\Experiments\Code Files> d:; cd 'd:\College\Machine Learning\Experiments\Code Files'; & 'c:\Users\HARSHINI RN\AppData\Local\Microsoft\WindowsApps\python3.13.exe' 'c:\Users\HARSHINI RN\.vscode\extensions\ms-python.debugpy-2025.18.0-win32-x64\bundled\libs\debugpy\launcher' '63028' '--' 'd:\College\Machine Learning\Experiments\Code Files\19.py'
Enter Income: 60000
Enter Credit Score: 700
C:\Users\HARSHINI RN\AppData\Local\Packages\PythonSoftwareFoundation.Python.3.13_qbz5n2kfra8p0\LocalCache\local-packages\Python313\site-packages\sklearn\utils\validation.py:2691: UserWarning: X does not have valid feature names, but GaussianNB was fitted with feature names
  warnings.warn(
Loan Approved (1=Yes,0=No): 1
PS D:\College\Machine Learning\Experiments\Code Files>
```