

Experiment -11

Dataset: [Income, Age, Loan Amount], Credit Score

```
data = [
    [50000, 25, 200000, 'Good'],
    [30000, 22, 150000, 'Bad'],
    [70000, 45, 100000, 'Good'],
    [25000, 30, 180000, 'Bad'],
    [90000, 50, 120000, 'Good']
]

# Rule-based classifier
def classify(income, age, loan):
    if income > 40000 and loan < 180000:
        return 'Good'
    else:
        return 'Bad'

# Testing
correct = 0
print("Predictions:")
for row in data:
    pred = classify(row[0], row[1], row[2])
    print(row[:-1], "->", pred)
    if pred == row[-1]:
        correct += 1

# Accuracy
accuracy = correct / len(data)
print("Accuracy:", accuracy)
```

Output:

main.py				Run	Output	
<pre>1+ data = [2 [50000, 25, 200000, 'Good'], 3 [30000, 22, 150000, 'Bad'], 4 [70000, 45, 100000, 'Good'], 5 [25000, 30, 180000, 'Bad'], 6 [90000, 50, 120000, 'Good'] 7] 8+ def classify(income, age, loan): 9+ if income > 40000 and loan < 180000: 10+ return 'Good' 11+ else: 12 return 'Bad' 13 correct = 0 14 print("Predictions:") 15 for row in data: 16 pred = classify(row[0], row[1], row[2]) 17 print(row[:-1], "->", pred) 18+ if pred == row[-1]: 19 correct += 1 20 accuracy = correct / len(data) 21 print("Accuracy:", accuracy) 22</pre>	<p>Predictions:</p> <p>[50000, 25, 200000] -> Bad [30000, 22, 150000] -> Bad [70000, 45, 100000] -> Good [25000, 30, 180000] -> Bad [90000, 50, 120000] -> Good</p> <p>Accuracy: 0.8</p> <p>== Code Execution Successful ==</p>					
https://www.programiz.com						Activate Windows Go to Settings to activate Windows.