

## 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

Share

Run

```
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
```

Output

Clear

Predictions:

[50000, 25, 200000] -> Bad

[30000, 22, 150000] -> Bad

[70000, 45, 100000] -> Good

[25000, 30, 180000] -> Bad

[90000, 50, 120000] -> Good

Accuracy: 0.8

=== Code Execution Successful ===

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