

./Programming Fundamentals using Python - Part 01/Assignment Set - 02/Assignment on all select

```
1: """
2: The Metro Bank provides various types of loans such as car loans, business loans and house loans to its account
3: holders. Write a python program to implement the following requirements:
4:
5: 1. Initialize the following variables with appropriate input values:account_number, account_balance, salary, loan_type,
6: loan_amount_expected and customer_emi_expected.
7: 2. The account number should be of 4 digits and its first digit should be 1.
8: 3. The customer should have a minimum balance of Rupees 1 Lakh in the account.
9: 4. If the above rules are valid, determine the eligible loan amount and the EMI that the bank can provide to its
10: customers based on their salary and the loan type they expect to avail.
11: 5. The bank would provide the loan, only if the loan amount and the number of EMIâ\200\231s requested by the customer is
12: less than or equal to the loan amount and the number of EMIâ\200\231s decided by the bank respectively.
13:
14: Display appropriate error messages for all invalid data. If all the business rules are satisfied ,then display account n
umber, eligible and requested loan amount and EMIâ\200\231s.
15: Test your code by providing different values for the input variables.
16:
17: =====
18: | Salary | Loan Type | Eligible Loan Amount | No of EMIs required to repay |
19: =====
20: | > 25000 | Car | 500000 | 36 |
21: | > 50000 | House | 6000000 | 60 |
22: | > 75000 | Business | 7500000 | 84 |
23: =====
24: """
25:
26:
27: def calculate_loan(account_number, salary, account_balance, loan_type, loan_amount_expected, customer_emi_expected):
28:     eligible_loan_amount = 0
29:     bank_emi_expected = 0
30:     if account_number > 999 and account_number < 2000:
31:         if account_balance >= 100000:
32:             if salary > 25000 and loan_type == "Car":
33:                 eligible_loan_amount = 500000
34:                 bank_emi_expected = 36
35:                 if loan_amount_expected <= eligible_loan_amount and customer_emi_expected <= bank_emi_expected:
36:                     print("Account number:", account_number)
37:                     print("The customer can avail the amount of Rs.", eligible_loan_amount)
38:                     print("Eligible EMIs :", bank_emi_expected)
39:                     print("Requested loan amount:", loan_amount_expected)
40:                     print("Requested EMI's:", customer_emi_expected)
41:                 else:
42:                     print("The customer is not eligible for the loan")
43:             elif salary > 50000 and loan_type == "House":
44:                 eligible_loan_amount = 6000000
45:                 bank_emi_expected = 60
46:                 if loan_amount_expected <= eligible_loan_amount and customer_emi_expected <= bank_emi_expected:
47:                     print("Account number:", account_number)
48:                     print("The customer can avail the amount of Rs.", eligible_loan_amount)
49:                     print("Eligible EMIs :", bank_emi_expected)
50:                     print("Requested loan amount:", loan_amount_expected)
51:                     print("Requested EMI's:", customer_emi_expected)
52:                 else:
53:                     print("The customer is not eligible for the loan")
54:             elif salary > 75000 and loan_type == "Business":
55:                 eligible_loan_amount = 7500000
56:                 bank_emi_expected = 84
57:                 if loan_amount_expected <= eligible_loan_amount and customer_emi_expected <= bank_emi_expected:
58:                     print("Account number:", account_number)
59:                     print("The customer can avail the amount of Rs.", eligible_loan_amount)
60:                     print("Eligible EMIs :", bank_emi_expected)
61:                     print("Requested loan amount:", loan_amount_expected)
62:                     print("Requested EMI's:", customer_emi_expected)
63:                 else:
64:                     print("The customer is not eligible for the loan")
65:             else:
66:                 print("Invalid loan type or salary")
67:         else:
68:             print("Insufficient account balance")
69:     else:
70:         print("Invalid account number")
71:
72:
73: calculate_loan(1001, 40000, 250000, "Car", 300000, 30)
```