

## Exercise 1: Control Structures

**Scenario 1:** The bank wants to apply a discount to loan interest rates for customers above 60 years old. Below are the screenshots of output.

Output:

Scenario 1:

1. A Customer name "Senior Jhon" with CustomerID 100 have the age greater than 60.

	CustomerID	Name	DOB	Balance	LastModified	IsVIP
▶	1	John Doe	1985-05-15	1000.00	2025-06-26	0
	2	Jane Smith	1990-07-20	1500.00	2025-06-26	0
	100	Senior John	1950-01-01	10000.00	2025-06-26	0
	301	Due Dan	1980-03-01	8000.00	2025-06-26	0
★	NULL	NULL	NULL	NULL	NULL	NULL

2. The Interest rate with CustomerID 100 is 8% before calling the procedure.

Result Grid						
	LoanID	CustomerID	LoanAmount	InterestRate	StartDate	EndDate
▶	1	1	5000	5.00	2025-06-26	2030-06-26
	200	100	50000	8.00	2025-06-26	2030-06-26
	201	101	40000	9.00	2025-06-26	2030-06-26
★	NULL	NULL	NULL	NULL	NULL	NULL

3. The Interest rate after calling the procedure became 7% because the discount of 1% applied.

Result Grid						
	LoanID	CustomerID	LoanAmount	InterestRate	StartDate	EndDate
▶	1	1	5000	5.00	2025-06-26	2030-06-26
	200	100	50000	7.00	2025-06-26	2030-06-26
	201	101	40000	9.00	2025-06-26	2030-06-26
★	NULL	NULL	NULL	NULL	NULL	NULL

**Scenario 2:** A customer can be promoted to VIP status based on their balance.

Output :

- Customer is promoted to VIP status by updating the value of IsVIP to 1 if balance is over \$10,000 using procedure in SQL. Here CustomerID 101 have balance 12,000 thus, It will get VIP status.

	CustomerID	Name	DOB	Balance	LastModified	IsVIP
▶	1	John Doe	1985-05-15	1000.00	2025-06-26	0
	2	Jane Smith	1990-07-20	1500.00	2025-06-26	0
	100	Senior John	1950-01-01	10000.00	2025-06-26	0
	101	Young Jane	1995-05-01	12000.00	2025-06-26	1
●	NULL	NULL	NULL	NULL	NULL	NULL

**Scenario 3 :** The bank wants to send reminders to customers whose loans are due within the next 30 days.

Output :

- A procedure is implemented that fetches all loans due in the next 30 days and prints a reminder message for each customer. Here CustomerID 301 will get a message.

```
mysql> select * from loans;
+-----+-----+-----+-----+-----+-----+
| LoanID | CustomerID | LoanAmount | InterestRate | StartDate | EndDate |
+-----+-----+-----+-----+-----+-----+
| 1 | 1 | 5000 | 5.00 | 2025-06-26 | 2030-06-26 |
| 200 | 100 | 50000 | 7.00 | 2025-06-26 | 2030-06-26 |
| 201 | 101 | 40000 | 9.00 | 2025-06-26 | 2030-06-26 |
| 301 | 301 | 20000 | 7.50 | 2025-06-26 | 2025-07-11 |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.04 sec)

mysql> CALL SendLoanDueReminders();
+-----+
| ReminderMessage |
+-----+
| Reminder: Dear Due Dan, your loan ID 301 is due on 2025-07-11 |
+-----+
1 row in set (0.04 sec)

Query OK, 0 rows affected (0.05 sec)
```