TATA CONSULTANCY SERVICES

LEARNING & DEVELOPMENT
CO-CREATING CAPABILITIES

Java/J2EE -Information Management Diagnostics

Bank Customer Account Case Study

Please make sure that you use InnoDB engine while you are creating the tables in MYSQL.

DDL Concepts

customer_id	customer_name	address	email_id	Salary	Bank_Branch_Cd

customer_id	Transaction_Date	Transaction Description	Credit	Debit	Current_Balance

Bank_Branch_Cd	Bank_Branch_Name,	Branch_Addr

Please keep in mind that the selection of data types for the columns in all the tables should be logical and appropriate.

1. Create a parent table named **customer** with the following set of fields customer_id,customer_name,address,email_id, Salary and Bank_Branch_Cd

   Note :

   a. customer_id - Primary key, Not null and also auto-increment.

   b. customer_name & mail_id as unique constraint.

   c. Bank_Branch_Cd foreign key reference Bank_Branch Bank_Branch_Cd

2. Create a transaction table named **Accounts** for customer table with the following set of fields customer_id,Transaction_Date,Transaction Description, Credit, Debit and Current_Balance.

   Note:

   a. customer_id – foreign key reference Customer_id

   (a customer can have multiple transaction in the system).

3. Create a Reference table named **Bank_Branch** with the following set of fields Bank_Branch_Cd, Bank_Branch_Name, Branch_Addr

   Note: a. Bank_Branch_Cd – primary key

4. Increase the size of the customer. email_id to accommodate more characters and Change the

column Transaction_Date to Trans_Dt in Account Table

DML Concepts

1. Insert more than 5 records in the **customer** table.
2. Insert more then 20 records in the **Account** table.
3. Insert more than 10 records in the **Bank_Branch** table.
4. Insert a record in the **Account** table with a customer_id which is not present in the customer table and look for the result.
5. Insert a record in the **customer** table with Bank_Branch_Cd which is not present in the **Bank_Branch** table and try to look for the result.
6. Create only a customer_name in the customer table.
7. Modify any one of the customer name in the customer table.
8. Fetch the entire records from the customer table order by customer_name.
9. Fetch the customer_name and the mail_id of all the customers in the customer table which are not null.
10. Fetch the transaction that has been made by a customer between 01-01-2011 and 10-01-2012 in Account table.
11. Fetch the customer_name that starts with the alphabet a.
12. Fetch the customer_name that ends with d.
13. Fetch the customer_name that contains the character 'vi' in it.
14. Fetch the Transaction belongs to group of customers using the keyword IN from Account table.
15. Fetch the DISTINCT branch code from Account table.
16. Fetch the Customer details with complete Bank Branch Details.
17. Consider that a new customer added without any transaction. Fetch the customer and transaction detail for all the customers.
18. Delete the Transaction information from Accounts for any one of the Customer.
19. Delete the Customer information for any one of the customer.
20. Delete any one of the Branch code from Bank_Branch.
21. Try to delete any of the customer information whose transaction is still available in Account table and try to look for the result.
22. Drop the unique constraint in customer table.
23. Drop the customer table and look for the result.
24. Drop the Account table and look for the result.
25. Drop the Bank_Branch table and understand the concepts and procedures while dropping a table.

Note :
Please take **screen shots of table structure and data before you drop a table**