

ASD-LAB-SET-2

Customer					
<u>customer_id</u> (string)	first_name	last_name	state	phone	email
C0001	Richard	Collins	New York	9485178542	rcollins@test.com
C0002	Peter	Parker	Queens	6254791542	peter@test.com
C0003	Stan	Glen	Nevada	741256342	stang@test.com
C0004	Steve	Green	New York	6597534242	steven@test.com
C0005	John	Adams	Nevada	8632415973	johna@test.com

Account			
<u>Account_id</u>	Type	Balance	Credit_line
AC0001	Savings	30000	50000
AC0002	Savings	50000	50000
AC0003	Current	75000	100000
AC0004	Savings	80000	50000
AC0005	Current	25000	20000
AC0006	Current	22000	50000
AC0007	Savings	18000	20000

Transactions			
<u>Tx_id</u>	Account_id	Amount	Type
TX0001	AC0003	5000	Credit
TX0002	AC0002	7500	Debit
TX0003	AC0003	8000	Debit
TX0004	AC0001	500	Credit
TX0005	AC0005	4000	Debit
TX0006	AC0004	1000	Debit
TX0007	AC0007	2000	Credit
TX0008	AC0006	7000	Debit
TX0009	AC0001	3000	Credit
TX0010	AC0006	2500	Credit

Customer_Accounts	
Customer_id	Account_id
C0001	AC0002
C0003	AC0004
C0005	AC0001
C0002	AC0006
C0004	AC0005
C0005	AC0007
C0003	AC0003

1. Create and populate shown tables. Use appropriate data types and Check the following constraints:

Define appropriate Primary keys and foreign keys for all tables

Customer_id should be of the format "C00__"

Account_id should be of the format "AC00__"

Tx_id should be of the format "TX00__"

Email should be of the format "abc@xyz.com"

2. Display the details of all customers whose first name begins with S and last name ends with n.
3. Display all the transactions that have taken place in the account belonging to John Adams in ascending order.
4. Display name of Customers having at least two Savings Accounts
5. Display the total number of customers in the states in which the total balance is greater than 25,000.
6. Create a trigger that updates the account balance whenever a new transaction is entered.
7. Create a view "Defaulters" containing the name, state and phone number of all customers whose current balance is below credit line.
8. Using a cursor, reduce the credit line for all accounts that have balance greater than 20000 by 3%.
9. You are given a table, Functions, containing two columns: X and Y.
Two pairs (X1, Y1) and (X2, Y2) are said to be symmetric pairs if $X1 = Y2$ and $X2 = Y1$.
Write a query to output all such symmetric pairs in ascending order by the value of X.

Sample Input

X	Y
20	20
20	20
20	21
23	22
22	23
21	20

Sample Output

20 20
20 21
22 23

PL/SQL

1. For all customers with balance less than 5000, deposit Rs 1000. You must update the balance as well as create a transaction entry.
2. Given 2 distinct prime integers, p & q ($2 < p, q$), find a prime number n such that $p < n < q$ and $(q-n)*(n-p)$ is maximum. If two such n exist print the minimum of the two and If no prime number exist between them, print -1.

Exam Report should be prepared with the following contents.

A proper report is to be submitted after the examination. It should include at least the following:

1. A title page that includes subject, date, author name, roll no and University Register Number.
2. Problem statement.
3. Brief explanation of the theory related to your problem.
4. Informative listings of test runs, i.e. at least Three or Four test runs.
5. Listings of well-commented and well-structured programs.