

# Laboratory Assignments

## Subject: Introduction to Databases

### Subject code: CSE 3151

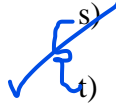


#### Assignment 5: Subqueries, Joins and View

##### Objective of this Assignment:

- To write SQL query using concept of sub query, join, view.

**1. Write the expression for the following set of queries in SQL, based on the set of schemas of Assignment (4), using concept of sub query.**

- Find out the name, phone\_no and cust\_no of customer having Account\_no “A0004”.
- Find out the loan\_amount and branch code of customer named “YASH SARAF”.
- Find out the name of the customer who has not taken any loan.
- Find out the account\_no and Balance of customer with cust\_no = “C0010”.
- Find out the branch\_city where “ASLESHA TIWARI” has taken a loan.
- Find out the installment details of customer named “ANKITA SINGH”.
- Find out the branch name and branch city, in which “ABHIJIT MISHRA” has an account.
- Create a table named ACCOUNT\_TYPE from ACCOUNT table with two columns named as ACCOUNT\_NO and TYPE without taking any records from ACCOUNT table.
- Insert the account no and type from ACCOUNT table into the ACCOUNT\_TYPE table whose balance is less than 50000.
- UPDTAE the account type to FD in ACCOUNT\_TYPE table for the customer with CUST\_NO equal to C0007.
- Delete from ACCOUNT\_TYPE table the details of account whose balance is less than 20000.
- Find out the name of the customers who have both an account and loan at the bank.

- m) Find out the name of all customers who have a loan at the bank but don't have an account at the bank.
- n) Find out the name of the customers having more than one account.
- ~~o) Find out the details of the account having same type and branch\_code as the account\_no A0001.~~
- p) Display the customer number and the number of accounts, which has more than one account **without using having clause**. (Use sub query in the form clause)
- q) Display the name of the customers and their number of accounts, who have more than one account. (Use scalar subquery)
- r) Display the branch codes and average account balance of those branches where the average account balance is greater than **60000**. (Use sub query in the form clause)
-  s) Find out the account\_no that has greater balance than some accounts of type FD. (Use >some clause)
-  t) Find out the account\_no that has greater balance than all accounts of type FD. (Use >all clause)
- u) Display the details of the branch in which some loans are taken. (Use exist clause)
- v) Display the details of the loan for which no instalments are paid. (Use not exist clause)
-  w) Increase all accounts with balance over 80000 by 6%, and all other accounts receive 5%. (Use case statement)

**2. Write the expression for the following set of queries in SQL, based on the set of schemas of Assignment (4), using concept of join.**

- a) Find out the Loan\_nos where the loans are taken from any branch with branch\_city =MUMBAI.
- b) Find the Type of the accounts available in any branch with branch\_city =DELHI.
- c) Find out the Name and Ph\_no of customers who have account balance more than 100000.
- d) Find out Installment\_no and Installment amount of customer with Name= RAJ ANAND SINGH.
- e) Find out the Name of the customers who do not have account of Type=SB.
- f) Find out the Name of the customers who have paid installments of Amount 50000 against his/her loan.
- g) Find out the Ph\_no of customers having account at branch with Branch\_name equal to SALT LAKE.
- h) Find out the Branch\_name and Branch\_city where customer with Name=ABHIJIT MISHRA has his account.

- i) Find out the Types of account and the account Balance of customer with Name='SWAROOP RAY'
- j) Display the name and the number of accounts of the customers, who have more than one account.
- k) Find all the account\_no with the maximum balance. (use with clause)
- h) Find all branch codes where the total balance is greater than the average of the total balance at all departments. (use with clause)

**3. Write the expression for the following set of queries in SQL, based on the set of schemas of Assignment (4), using concept of view.**

- a) Create a view CUSTOMER\_ACC\_DETAILS consisting of Customer\_No, Name with Account number and Balance.
  - Check the structure of the view.
  - Access the data from the view.
  - Delete the information of the customer having CUST\_NO C0004 from the view. Check whether the deletion has done any changes in the base tables.
  - Insert the information of the customer having CUST\_NO C0004 to the view again.
  - Update the view CUSTOMER\_ACC\_DETAILS to include customer's phone no.
  - Delete the view with its structure.
- b) Create a View BRANCH\_LOCATE having columns Branch Name and Branch City having branch city not in KOLKATA.
- c) Create a view LOAN\_M with column customer name, loan no. and loan amount representing the details of all customers having loan in any branch of MUMBAI.
  - Display the name of the customers taking loan amount between 50000 to 500000 in any branch of MUMBAI. (Write the query using the view LOAN\_M and without using the view)
- d) Create a view ALL\_CUSTOMERS consisting of branches and their customers.
  - Find all customers WHO HAVE AN ACCOUNT OR LOAN IN JUHU BRANCH.
  - Display the number of customers of each branch.