

## 1. Consider the following tables

**Deposit (Actno, Cname, Amount, Adate)**

**Branch ( Bname, City)**

**Customer (Cname, City, ContNo)**

**Borrow (Loanno, Cname, Bname, Amount)**

write the following queries in SQL.

- a) List Names of customers who opened account after date 1-Dec-15
- b) List Account Number and Deposit Amount of Customer having account opened between Dates 1-Dec-15 and 6-Apr-16.
- c) List Name of the city where the Patna branch is located.
- d) List Name of Customer having living city Mumbai and branch city Delhi.
- e) List Names of Customers having same living city as their branch city.
- f) List Names of Customers who are Borrowers as well as Depositors and Having living city Nagpur.
- g) List Names of Borrowers having deposit amount greater than 1000 and loan amount greater than 2000.
- h) List Names of Customers Living in the city where branch of Depositor sunil is located.
- i) List the Branch city and Living city of Pramod.
- j) List All the Customers who are Depositors but not Borrowers.
- k) List All the Customers who are Both Depositors and Borrowers.
- l) List All the Customers , along with their amount, who are Either Borrowers or Depositors and Living in Nagpur.
- m) List All the Customers who are Both Depositors and Borrowers and Living in the same city as Sunil.
- n) List the Cities which are either branch city of Anil or Living city of Sunil.
- o) List the Customers who are Borrowers or Depositors and having living city Mumbai and the Branch city is same as that of sandip.
- p) List Maximum Deposit of Customers living in Mumbai.
- q) List Branch name and Branch wise Deposit.

- r) List the Branches having sum of Deposit More than 4000.
- s) List the Names of Customers having Deposit in the Branches where the Average Deposit is more than 1000.
- t) List Names of Branches having the number of Depositors more than the number of Borrowers.

**The Update Statement**

- a) Set 10% Interest to All Depositors
- b) List 10% Interest to All Depositors Living in Nagpur.
- c) Add Hundred Rupees to Deposit of Ajay and assign it to Sunil
- d) Transfer Rs 10 from the Account of Ajay to the Account of Sunil
- e) Add 100 to the Account of all Those Depositors who are having the Highest Deposit amount in their Respective Branches.

**The Delete Statement**

- a) Delete Depositors of Branches Having Number of Customer between 1 and 3.
- b) Delete Branches Having Maximum Loan more than 5000.
- c) Delete Deposit of Ajay and Sunil if both are having the same Living City
- d) Delete Deposit of Ajay if Vijay is not a Depositor
- e) Delete Borrower of Branches Having Average Loan Less than 1000.

2.

Salesperson

ID	Name	Age	Salary
1	Abe	61	140000
2	Bob	34	44000
5	Chris	34	40000
7	Dan	41	52000
8	Ken	57	115000
11	Joe	38	38000

Customer

ID	Name	City	Industry Type
4	Samsonic	pleasant	J
6	Panasung	oaktown	J
7	Samony	jackson	B
9	Orange	Jackson	B

Orders

Number	order_date	cust_id	salesperson_id	Amount
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10	8/2/96	4	2	540
20	1/30/99	4	8	1800
30	7/14/95	9	1	460
40	1/29/98	7	2	2400
50	2/3/98	6	7	600
60	3/2/98	6	7	720
70	5/6/98	9	7	150

Given the tables above, find the following:

- The names of all salespeople that have an order with Samsonic.
- The names of all salespeople that do not have any order with Samsonic.
- The names of salespeople that have 2 or more orders.
- The details of all salespeople who taken order same date
- The details of all salespeople that do not have any order

### 3. Consider following tables are given

**Student (Snum, Name, Major, Level, Age)**

**Class (Name, Time, Room, Fid)**

**Enrolled (Snum, CourseName)**

**Faculty (Fid, Name, Dept)**

**write the following queries in SQL. No duplicates should be printed in any of the answers.**

- Find the names of all CS Majors (Major = "CS") who are enrolled in the course "Math92".
- Find the names of all CS Majors (Major = "CS") who are enrolled in the course "Math92" and are older than some History freshman (Level="FR").
- Find the names of all classes that either meet in room R128 or are taught by "H.Merlin".
- Find the names of all pairs of students who are enrolled in some class together.
- Find the names of all pairs of students who are enrolled in two classes that meet at the same time (including pairs of students who are enrolled in the same class).
- Find the names of faculty members who teach in every room in which some class is taught in the time period "MW9-10".
- Find the names of faculty members such that the combined enrollment of the courses that they teach is less than 5.

8. Print the Level and the average age of students for that Level, for each Level.
9. Find the name of the student who is enrolled in the most classes.
10. Find the names of all students who are not enrolled in any class taught by "H.Merlin".

**4. The following relations keep track of airline flight information:**

**Flights** (*flno*: integer, *from*: string, *to*: string, *distance*: integer, *departs*: time, *arrives*: time, *price*: integer)

**Aircraft** (*aid*: integer, *aname*: string, *cruisingrange*: integer)

**Certified** (*eid*: integer, *aid*: integer)

**Employees** (*eid*: integer, *ename*: string, *salary*: integer)

**Note that the Employees relation describes pilots and other kinds of employees as well; every pilot is certified for some aircraft, and only pilots are certified to fly. Write each of the following queries in SQL.**

- a. Find the names of aircraft such that all pilots certified to operate them earn more than \$80,000.
- b. For each pilot who is certified for more than three aircraft, find the *eid* and the maximum *cruisingrange* of the aircraft for which she or he is certified.
- c. Find the names of pilots whose *salary* is less than the price of the cheapest route from Los Angeles to Honolulu.
- d. For all aircraft with *cruisingrange* over 1000 miles, find the name of the aircraft and the average salary of all pilots certified for this aircraft.
- e. Find the names of pilots certified for some Boeing aircraft.
- f. Find the *aids* of all aircraft that can be used on routes from Los Angeles to Chicago.
- g. Identify the routes that can be piloted by every pilot who makes more than \$100,000.
- h. Print the *enames* of pilots who can operate planes with *cruisingrange* greater than 3000 miles but are not certified on any Boeing aircraft.
- i. A customer wants to travel from Madison to New York with no more than two changes of flight. List the choice of departure times from Madison if the customer wants to arrive in New York by 6 p.m.

- j. Compute the difference between the average salary of a pilot and the average salary of all employees (including pilots).

