Practice sheet A

Table: Employee

EmpId	name	age	country	salary	dateOfJoining	phone
1	Reshma	28	India	250000	2023-01-09	9898989898
2	Ana	32	Australia	50000	2023-09-09	9876549012
3	Stephan	44	USA	70000	2023-09-09	9876056781
4	Rahul	29	India	95000	2023-04-07	9870632415
5	Geeta	29	India	77000	2023-09-14	8760986709
6	Edward	45	France	89000	2022-11-24	9876590561
7	Bella	23	France	20000	2021-09-18	7890654321

1. Write an SQL statement to display specific columns such as names and salaries for all Employees
2. Write a SQL query to locate an employee who lives in ‘India'. Return the employee’s name and country.
3. Write an SQL statement to return the name of an employee whose salary is more than 40000.
4. Write a SQL statement to return the name of an employee whose salary is between 50000 and 80000.
5. Write a SQL query to find the employee whose ages are higher than or equal to 30. Order the result by age in descending.
6. Write a query to display the names of employees in the order of their joining date.
7. Write a query to count the number of employees.
8. Write a query to display the name and salary of an employee who either lives in France or Australia.

9. Write a query to delete the records of Ana.
10. Write an SQL query to find the lowest salary of an employee
11. Write an SQL query to find the highest salary of an employee
12. Write a query to add an email column in the existing employee table.
13. Write a query to update the age of an employee to 55 and salary to 90000 where id is 4.
14. Write a query to rename a column country to address
15. Write a query to delete the age column.

16. Create a table named person with fields id, name, city, age, email, country using the following constraints.

    i) The field id should be a primary key

    ii) Name field cannot be null

    iii) city field cannot be null and for default value use “Delhi”

    iv) Age should be greater than 18

    v) email should be unique and cannot be null

    vi) country field cannot be null and for default use “India”

Practice set B

1. Create both table and perform the following operations

Employee Table

Empid	name	city	age	salary
1	Ana	Delhi	22	77000
2	Geeta	Noida	25	45000
3	Raj	Banagalore	32	56000
4	Ema	Delhi	35	44000
5	Sunil	Lucknow	29	95000
6	shweta	Udaypur	20	77000
7	Evee	Chennai	44	95000

Department Table

DeptID	deptName	EmpId
10	Marketing	1
20	Purchasing	2
30	Human Resources	1
40	Shipping	3
50	Shipping	4
70	Shipping	5
90	Finance	7

From the above table solve the following

i) Write a query to display the name of the employee who works in the shipping department

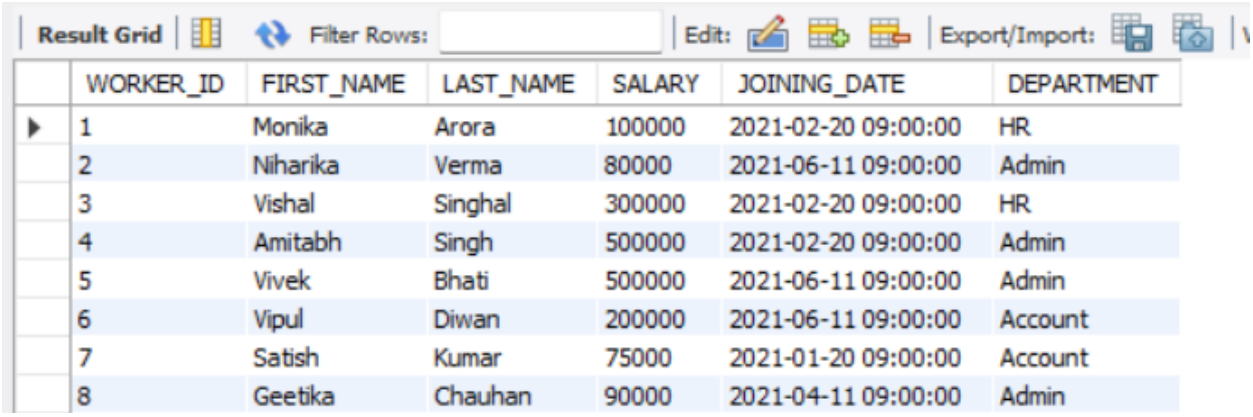
ii) Write a query to display the names of the employees who are not in the shipping department.

iii) Write a query to display the name of a department having employees with a salary less than 50000.

2. Look at the sample table and perform the following questions

   (Sample code is given below to create these tables)

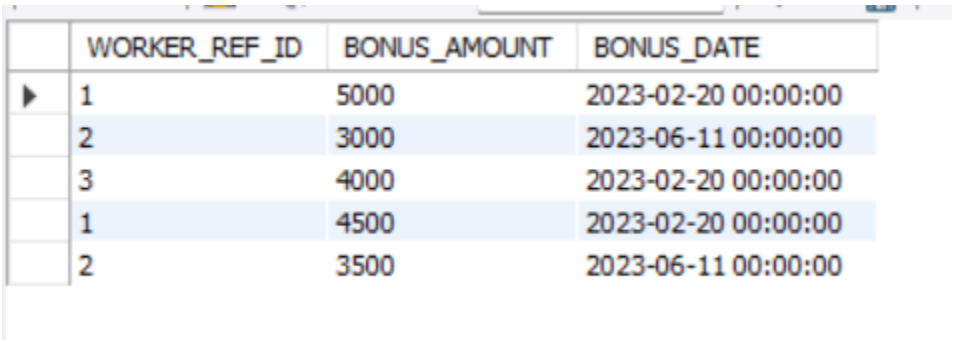
Sample Table – Worker



Result Grid | Filter Rows: | Edit: | Export/Import:

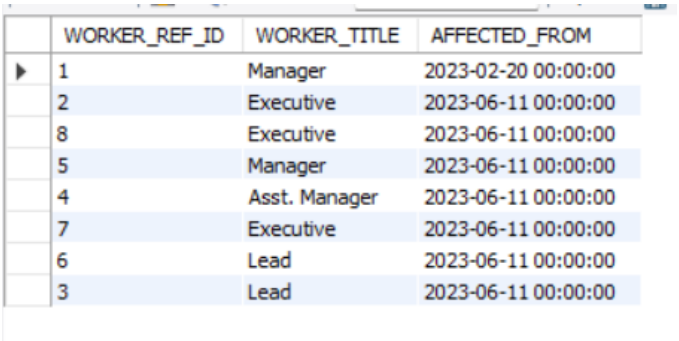
WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	Monika	Arora	100000	2021-02-20 09:00:00	HR
2	Niharika	Verma	80000	2021-06-11 09:00:00	Admin
3	Vishal	Singhal	300000	2021-02-20 09:00:00	HR
4	Amitabh	Singh	500000	2021-02-20 09:00:00	Admin
5	Vivek	Bhati	500000	2021-06-11 09:00:00	Admin
6	Vipul	Diwan	200000	2021-06-11 09:00:00	Account
7	Satish	Kumar	75000	2021-01-20 09:00:00	Account
8	Geetika	Chauhan	90000	2021-04-11 09:00:00	Admin

Sample Table – Bonus



WORKER_REF_ID	BONUS_AMOUNT	BONUS_DATE
1	5000	2023-02-20 00:00:00
2	3000	2023-06-11 00:00:00
3	4000	2023-02-20 00:00:00
1	4500	2023-02-20 00:00:00
2	3500	2023-06-11 00:00:00

Sample Table – Title



WORKER_REF_ID	WORKER_TITLE	AFFECTED_FROM
1	Manager	2023-02-20 00:00:00
2	Executive	2023-06-11 00:00:00
8	Executive	2023-06-11 00:00:00
5	Manager	2023-06-11 00:00:00
4	Asst. Manager	2023-06-11 00:00:00
7	Executive	2023-06-11 00:00:00
6	Lead	2023-06-11 00:00:00
3	Lead	2023-06-11 00:00:00

A. Write an SQL query to fetch “FIRST_NAME” from the Worker table using the alias name <WORKER_NAME>.
B. Write an SQL query that fetches the unique values of DEPARTMENT from the Worker table.
C. Write an SQL query to print all Worker details from the Worker table order by FIRST_NAME Ascending.
D. Write an SQL query to print details for Workers with the first names “Vipul” and “Satish” from the Worker table.
E. Write an SQL query to print details of workers excluding first names, “Vipul” and “Satish” from the Worker table.
F. Write an SQL query to print details of Workers with DEPARTMENT name as “Admin”.
G. Write an SQL query to print details of the Workers whose FIRST_NAME contains ‘a’.
H. Write an SQL query to print details of the Workers who joined in Feb 2021
I. Write an SQL query to fetch the count of employees working in the department ‘Admin’.
J. Write an SQL query to fetch the number of workers for each department in descending order.
K. Write an SQL query to show the first 10 records of a table.
L. Write an SQL query to fetch the departments that have less than five people in them.
M. Write an SQL query to fetch departments along with the total salaries paid for each of them.

SQL Script to Seed Sample Data for table Worker, Bonus and Title. You can simply use these queries to create these three tables and insert values in it.

```
CREATE DATABASE ORG;
SHOW DATABASES;
USE ORG;

CREATE TABLE Worker (
      WORKER_ID INT NOT NULL PRIMARY KEY AUTO_INCREMENT,
      FIRST_NAME CHAR(25),
      LAST_NAME CHAR(25),
      SALARY INT(15),
      JOINING_DATE DATETIME,
      DEPARTMENT CHAR(25)
);

INSERT INTO Worker
      (WORKER_ID, FIRST_NAME, LAST_NAME, SALARY, JOINING_DATE, DEPARTMENT)
VALUES
            (001, 'Monika', 'Arora', 100000, '21-02-20 09.00.00', 'HR'),
            (002, 'Niharika', 'Verma', 80000, '21-06-11 09.00.00',
'Admin'),
            (003, 'Vishal', 'Singhal', 300000, '21-02-20 09.00.00', 'HR'),
            (004, 'Amitabh', 'Singh', 500000, '21-02-20 09.00.00',
'Admin'),
            (005, 'Vivek', 'Bhati', 500000, '21-06-11 09.00.00', 'Admin'),
            (006, 'Vipul', 'Diwan', 200000, '21-06-11 09.00.00',
'Account'),
            (007, 'Satish', 'Kumar', 75000, '21-01-20 09.00.00',
'Account'),
            (008, 'Geetika', 'Chauhan', 90000, '21-04-11 09.00.00',
'Admin');

CREATE TABLE Bonus (
      WORKER_REF_ID INT,
      BONUS_AMOUNT INT(10),
```

```
      BONUS_DATE DATETIME,
      FOREIGN KEY (WORKER_REF_ID)
            REFERENCES Worker(WORKER_ID)
        ON DELETE CASCADE
);

INSERT INTO Bonus
      (WORKER_REF_ID, BONUS_AMOUNT, BONUS_DATE) VALUES
            (001, 5000, '23-02-20'),
            (002, 3000, '23-06-11'),
            (003, 4000, '23-02-20'),
            (001, 4500, '23-02-20'),
            (002, 3500, '23-06-11');
CREATE TABLE Title (
      WORKER_REF_ID INT,
      WORKER_TITLE CHAR(25),
      AFFECTED_FROM DATETIME,
      FOREIGN KEY (WORKER_REF_ID)
            REFERENCES Worker(WORKER_ID)
        ON DELETE CASCADE
);

INSERT INTO Title
      (WORKER_REF_ID, WORKER_TITLE, AFFECTED_FROM) VALUES
 (001, 'Manager', '2023-02-20 00:00:00'),
 (002, 'Executive', '2023-06-11 00:00:00'),
 (008, 'Executive', '2023-06-11 00:00:00'),
 (005, 'Manager', '2023-06-11 00:00:00'),
 (004, 'Asst. Manager', '2023-06-11 00:00:00'),
 (007, 'Executive', '2023-06-11 00:00:00'),
 (006, 'Lead', '2023-06-11 00:00:00'),
 (003, 'Lead', '2023-06-11 00:00:00');
```

Some website to practice sql

1. https://sqlzoo.net/wiki/SQL_Tutorial
2. https://sqlbolt.com/
3. https://www.sql-practice.com/
4. https://www.kaggle.com/learn/intro-to-sql