CREATE DATABASE ORG123;

SHOW DATABASES;

USE ORG123;

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, '14-02-20 09.00.00', 'HR'),

(002, 'Niharika', 'Verma', 80000, '14-06-11 09.00.00', 'Admin'),

(003, 'Vishal', 'Singhal', 300000, '14-02-20 09.00.00', 'HR'),

(004, 'Amitabh', 'Singh', 500000, '14-02-20 09.00.00', 'Admin'),

(005, 'Vivek', 'Bhati', 500000, '14-06-11 09.00.00', 'Admin'),

(006, 'Vipul', 'Diwan', 200000, '14-06-11 09.00.00', 'Account'),

(007, 'Satish', 'Kumar', 75000, '14-01-20 09.00.00', 'Account'),

(008, 'Geetika', 'Chauhan', 90000, '14-04-11 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, '16-02-20'),

(002, 3000, '16-06-11'),

(003, 4000, '16-02-20'),

(001, 4500, '16-02-20'),

(002, 3500, '16-06-11');

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', '2016-02-20 00:00:00'),

(002, 'Executive', '2016-06-11 00:00:00'),

(008, 'Executive', '2016-06-11 00:00:00'),

(005, 'Manager', '2016-06-11 00:00:00'),

(004, 'Asst. Manager', '2016-06-11 00:00:00'),

(007, 'Executive', '2016-06-11 00:00:00'),

(006, 'Lead', '2016-06-11 00:00:00'),

(003, 'Lead', '2016-06-11 00:00:00');

# 1. Write an SQL query to fetch unique values of DEPARTMENT from Worker table.

SELECT DISTINCT DEPARTMENT FROM Worker;

# 2. Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending and DEPARTMENT Descending

SELECT \* FROM Worker ORDER BY FIRST\_NAME ASC, DEPARTMENT DESC;

# 3. Write an SQL query to print details of the Workers whose FIRST\_NAME contains ‘a’

SELECT \* FROM Worker WHERE FIRST\_NAME LIKE '%a%';

# 4. Write an SQL query to print details of the Workers whose FIRST\_NAME ends with ‘h’ and contains six alphabets

SELECT \* FROM Worker WHERE FIRST\_NAME LIKE '\_\_\_\_\_h' AND LENGTH(FIRST\_NAME) = 6;

# 5. Write an SQL query to print details of the Workers whose SALARY lies between 100000 and 500000

SELECT \* FROM Worker WHERE SALARY BETWEEN 100000 AND 500000;

# 6. Write an SQL query to print details of the Workers who have joined in Feb’2014.

SELECT \* FROM Worker WHERE MONTH(JOINING\_DATE) = 2 AND YEAR(JOINING\_DATE) = 2014;

# 7. Write an SQL query to fetch the count of employees working in the department ‘Admin’

SELECT COUNT(\*) AS Admin\_Employee\_Count FROM Worker WHERE DEPARTMENT = 'Admin';

# 8. Write an SQL query to fetch worker names with salaries >= 50000 and <= 100000.

SELECT FIRST\_NAME, LAST\_NAME, SALARY FROM Worker WHERE SALARY BETWEEN 50000 AND 100000;

# 9. Write an SQL query to fetch the no. of workers for each department in the descending order

SELECT DEPARTMENT, COUNT(\*) AS Worker\_Count FROM Worker GROUP BY DEPARTMENT ORDER BY Worker\_Count DESC;

# 10. Write an SQL query to print details of the Workers who are also Managers

SELECT W.\* FROM Worker W JOIN Title T ON W.WORKER\_ID = T.WORKER\_REF\_ID WHERE T.WORKER\_TITLE = 'Manager';

# 11. Write an SQL query to determine the 2nd lowest salary without using TOP or limit method.

SELECT MIN(SALARY) AS Second\_Lowest\_Salary FROM Worker WHERE SALARY > (SELECT MIN(SALARY) FROM Worker);

# 12. Write an SQL query to fetch the list of employees with the same salary

SELECT \* FROM Worker WHERE SALARY IN ( SELECT SALARY FROM Worker GROUP BY SALARY HAVING COUNT(\*) > 1 );

# 13. Write an SQL query to show the second highest salary from a table

SELECT MAX(SALARY) AS SecondHighestSalary FROM Worker WHERE SALARY < ( SELECT MAX(SALARY) FROM Worker);

# 14. Write an SQL query to show one row twice in results from a table.

SELECT \* FROM Worker WHERE WORKER\_ID = 1 UNION ALL SELECT \* FROM Worker WHERE WORKER\_ID = 1;

# 15. Write an SQL query to fetch the first 50% records from a table.

SELECT w1.\* FROM Worker w1 WHERE (select count(\*) from worker w2 where w2.worker\_id <= w1.worker\_id) <= (select floor(count(\*) / 2) from worker) order by w1.worker\_id;

# 16. Write an SQL query to fetch the departments that have less than three people in it.

SELECT department FROM Worker group by department having count(\*)<3;

# 17. Write an SQL query to show all departments along with the number of people in there.

SELECT department, count(\*) FROM Worker group by Department;

# 18. Write an SQL query to fetch the last five records from a table

SELECT \* FROM worker order by worker\_id desc limit 5;

# 19. Write an SQL query to print the name of employees having the highest salary in each department

SELECT first\_name, last\_name, department, salary FROM worker w where salary = ( select max(salary) from worker where department = w.department );

# 20. Write an SQL query to fetch three max salaries from a table

SELECT distinct w1.salary FROM worker w1 WHERE 2 >= ( select count(distinct w2.salary) from worker w2 where w2.salary > w1.salary) order by w1.salary desc;

# 21. Write an SQL query to print the name of employees having the lowest salary in accunt and admin department

SELECT first\_name, last\_name FROM worker w WHERE department in ('account', 'admin') and salary = ( select min(salary) from worker where department = w.department);