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');

# Q1 Write an SQL query to fetch unique values of DEPARTMENT from Worker table.

SELECT DISTINCT department FROM worker;

#Q2 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;

#Q3 Write an SQL query to print details of the Workers whose FIRST\_NAME contains ‘a’

SELECT \* FROM worker where first\_name LIKE '%a%';

#Q4 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 CHAR\_LENGTH(first\_name) = 6;

#Q5 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;

#Q6 Write an SQL query to print details of the Workers who have joined in Feb’2014.

SELECT \* FROM worker WHERE YEAR(joining\_date) = 2014

AND MONTH(joining\_date) = 2;

#Q7 Write an SQL query to fetch the count of employees working in the department ‘Admin’

SELECT COUNT(\*) AS total\_admin\_emp FROM worker

WHERE department = 'Admin';

#Q8 Write an SQL query to fetch worker names with salaries >= 50000 and <= 100000.

SELECT first\_name, last\_name FROM worker

WHERE SALARY BETWEEN 50000 AND 100000;

#Q9 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;

#Q10 Write an SQL query to print details of the Workers who are also Managers

SELECT w.WORKER\_ID, w.FIRST\_NAME, w.LAST\_NAME, w.SALARY, w.JOINING\_DATE, w.DEPARTMENT FROM worker as w

JOIN title as t

ON w.WORKER\_ID = t.WORKER\_REF\_ID

WHERE t.WORKER\_TITLE = 'Manager';

#Q11 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);

#Q12 Write an SQL query to fetch the list of employees with the same salary

SELECT DISTINCT w1.WORKER\_ID, w1.FIRST\_NAME, w1.LAST\_NAME, w1.SALARY, w1.JOINING\_DATE, w1.DEPARTMENT

FROM worker as w1

JOIN worker as w2

ON w1.salary = w2.salary

AND w1.WORKER\_ID != w2.WORKER\_ID

ORDER BY w1.salary, w1.first\_name;

#Q13 Write an SQL query to show the second highest salary from a table

SELECT MAX(salary) AS second\_highest\_salary

FROM worker WHERE salary < (SELECT MAX(salary) FROM worker);

#Q14 Write an SQL query to show one row twice in results from a table

SELECT \* FROM worker

UNION ALL

SELECT \* FROM worker

WHERE WORKER\_ID = 5;

#Q15 Write an SQL query to fetch the first 50% records from a table.

SELECT \* FROM worker

ORDER BY WORKER\_ID

LIMIT (SELECT COUNT(\*)/2 FROM Worker);

#Q16 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;

#Q17 Write an SQL query to show all departments along with the number of people in there.

SELECT department , COUNT(\*) AS num\_workers

FROM worker GROUP BY department;

#Q18 Write an SQL query to fetch the last five records from a table

SELECT \* FROM worker

ORDER BY WORKER\_ID desc LIMIT 5;

#Q19 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 WHERE department = 'HR'

AND salary = (SELECT MAX(salary) FROM worker WHERE department = 'HR')

UNION ALL

SELECT first\_name, last\_name, department, salary

FROM worker WHERE department = 'Admin'

AND salary = (SELECT MAX(SALARY) FROM worker WHERE department = 'Admin')

UNION ALL

SELECT first\_name, last\_name, department, salary

FROM worker

WHERE department = 'Account'

AND salary = (SELECT MAX(SALARY) FROM worker WHERE department = 'Account');

#Q20 Write an SQL query to fetch three max salaries from a table

SELECT DISTINCT salary FROM worker

ORDER BY salary desc limit 3;

#Q21 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);