Name: PAARTH ANAND TIWARI

Reg no.: 22BCE10065

Campus: VIT BHOPAL

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');

-- Question 1

SELECT DISTINCT DEPARTMENT FROM Worker;

-- Question 2

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

-- Question 3

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

-- Question 4

SELECT \* FROM Worker WHERE FIRST\_NAME LIKE '\_\_\_\_\_h';

-- Question 5

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

-- Question 6

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

-- Question 7

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

-- Question 8

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

-- Question 9

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

-- Question 10

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

-- Question 11

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

WHERE SALARY > (

SELECT MIN(SALARY)

FROM Worker

);

-- Question 12

SELECT \* FROM Worker

WHERE SALARY IN (

SELECT SALARY

FROM Worker

GROUP BY SALARY

HAVING COUNT(\*) > 1

);

-- Question 13

SELECT MAX(SALARY) AS Second\_Highest\_Salary FROM Worker

WHERE SALARY < (

SELECT MAX(SALARY)

FROM Worker

);

-- Question 14

SELECT \* FROM Worker WHERE WORKER\_ID = 1

UNION ALL

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

-- Question 15

-- Question 17

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

-- Question 18

SELECT \* FROM Worker ORDER BY WORKER\_ID DESC LIMIT 5;

-- Question 19

SELECT W.FIRST\_NAME, W.LAST\_NAME, W.DEPARTMENT, W.SALARY FROM Worker W

JOIN (

SELECT DEPARTMENT, MAX(SALARY) AS MaxSalary

FROM Worker

GROUP BY DEPARTMENT

) AS dept\_max ON W.DEPARTMENT = dept\_max.DEPARTMENT AND W.SALARY = dept\_max.MaxSalary;

-- Question 20

SELECT DISTINCT SALARY FROM Worker ORDER BY SALARY DESC LIMIT 3;

-- Question 21

SELECT FIRST\_NAME, LAST\_NAME, DEPARTMENT, SALARY FROM Worker WHERE (DEPARTMENT = 'Account' OR DEPARTMENT = 'Admin')

AND SALARY = (

SELECT MIN(SALARY)

FROM Worker

WHERE DEPARTMENT = Worker.DEPARTMENT

);