Name:- Atharva R. Karkar

Class:- MCA(DS)

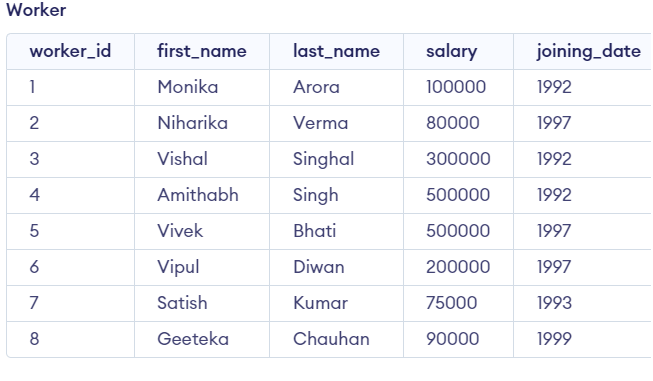
Subject:- DBMS

**Assignment - 01**

* **Workers Table :-**

create table worker(worker\_id int(5) PRIMARY KEY, first\_name varchar(10), last\_name varchar(10), salary int(10), joining\_date datetime, department varchar(10));

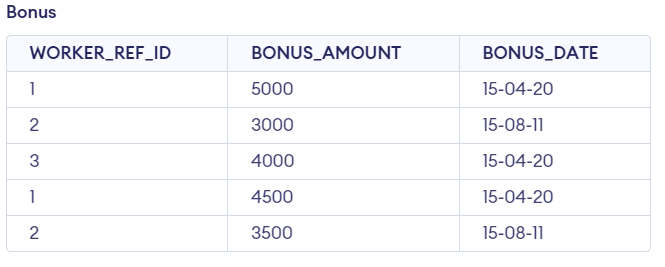
insert into worker values(001,"Monika","Arora",100000,2014-02-20,"HR"), (002,"Niharika","Verma",80000,2014-06-11,"Admin"), (003,"Vishal","Singhal",300000,2014-02-20,"HR"), (004,"Amithabh","Singh",500000,2014-02-20,"Admin"), (005,"Vivek","Bhati",500000,2014-06-11,"Admin"), (006,"Vipul","Diwan",200000,2014-06-11,"Account"), (007,"Satish","Kumar",75000,2014-01-20,"Account"), (008,"Geeteka","Chauhan",90000,2014-04-11,"Admin");



* **BONUS Table :-**

CREATE TABLE Bonus ( WORKER\_REF\_ID INT(5), BONUS\_AMOUNT INT(10), BONUS\_DATE DATETIME, FOREIGN KEY (WORKER\_REF\_ID) REFERENCES Worker(WORKER\_ID) );

INSERT INTO Bonus (WORKER\_REF\_ID, BONUS\_AMOUNT, BONUS\_DATE) VALUES (001, 5000, '15-04-20'), (002, 3000, '15-08-11'), (003, 4000, '15-04-20'), (001, 4500, '15-04-20'), (002, 3500, '15-08-11');



**TITLE :-**

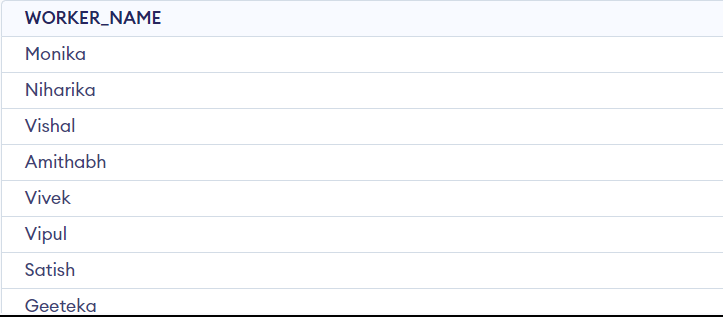
CREATE TABLE Title ( WORKER\_REF\_ID INT, WORKER\_TITLE CHAR(25), AFFECTED\_FROM DATETIME, FOREIGN KEY (WORKER\_REF\_ID) REFERENCES Worker(WORKER\_ID) );

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');



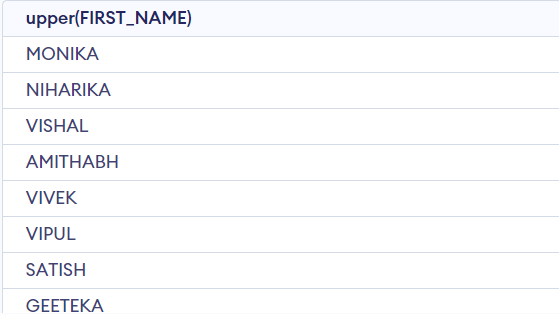
**Q.1 Write an SQL query for fetching “FIRST\_NAME” from the WORKER table using as alias.**

Select FIRST\_NAME AS WORKER\_NAME from Worker;

****

**Q.2 What is an SQL Query for fetching the “FIRST\_NAME” from WORKER table in upper case?**

Select upper(FIRST\_NAME) from Worker;

****

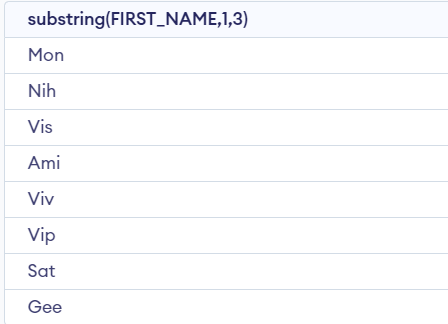
**Q.3 What is an SQL query for fetching the unique values of the column DEPARTMENT from the WORKER table?**

Select distinct DEPARTMENT from Worker;

****

**Q.4 Write an SQL query for printing the first three characters of the column FIRST\_NAME.**

Select substring(FIRST\_NAME,1,3) from Worker;



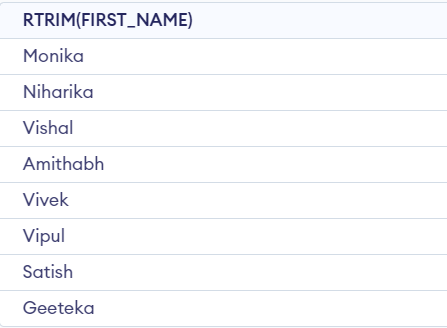
**Q.5 What is an SQL query for finding the position of the alphabet (‘A’) in the FIRST\_NAME column of Amitabh?**

Select INSTR(FIRST\_NAME, ‘a’) from Worker where FIRST\_NAME = 'Amitabh';



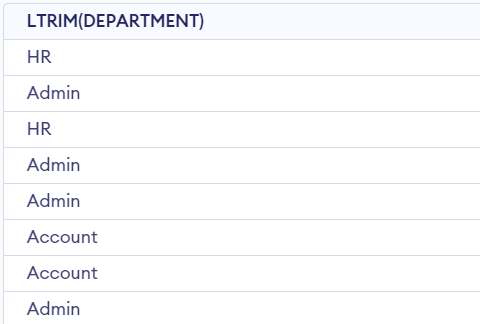
**Q.6 What is an SQL Query for printing the FIRST\_NAME from Worker Table after the removal of white spaces from right side.**

Select RTRIM(FIRST\_NAME) from Worker;



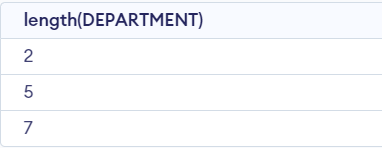
**Q.7 Write an SQL Query for printing the DEPARTMENT from Worker Table after the removal of white spaces from the left side.**

Select LTRIM(DEPARTMENT) from Worker;



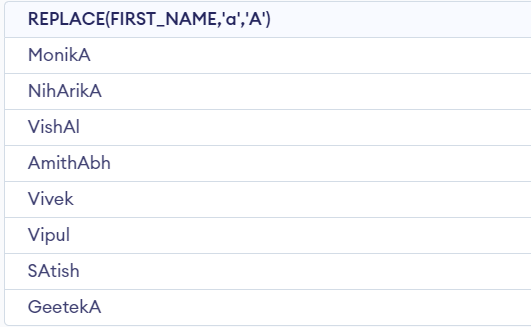
**Q.8 What is an SQL query for fetching the unique values from the DEPARTMENT column and thus printing is the length?**

Select distinct length(DEPARTMENT) from Worker;



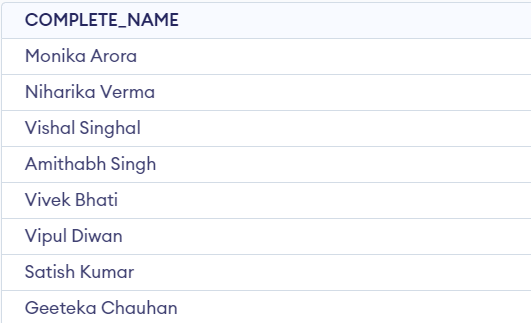
**Q.9 Write an SQL query for printing the FIRST\_NAME after replacing ‘A’ with ‘a’.**

Select REPLACE(FIRST\_NAME,'a','A') from Worker;



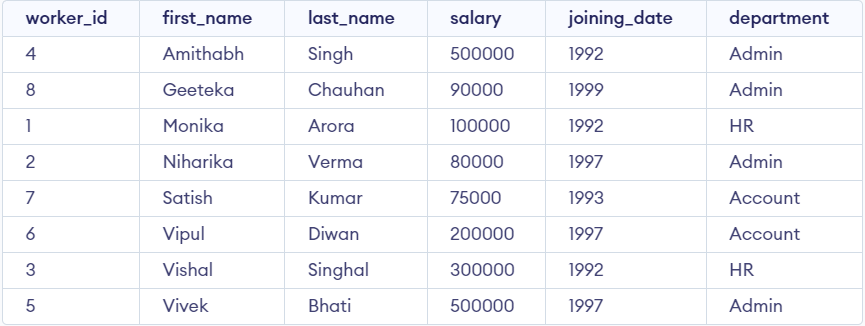
**Q.10 What is an SQL query for printing the FIRST\_NAME and LAST\_NAME into a column named COMPLETE\_NAME? (A space char should be used)**

Select CONCAT(FIRST\_NAME, ' ', LAST\_NAME) AS 'COMPLETE\_NAME' from Worker;



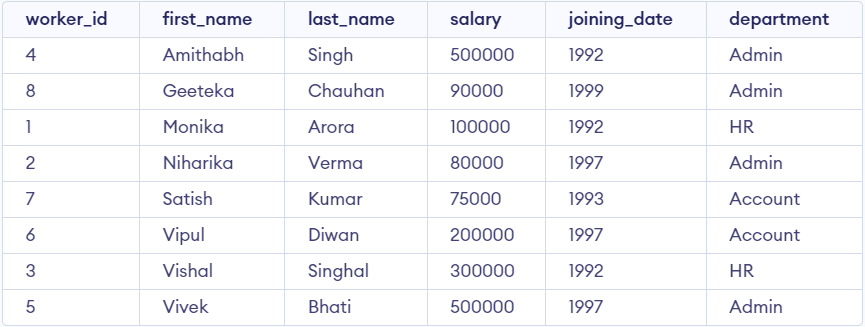
**Q.11 What is an SQL query for printing all details of the worker table which ordered by FIRST\_NAME ascending?**

Select \* from Worker order by FIRST\_NAME asc;



**Q.12 Write an SQL query for printing the all details of the worker table which ordered by FIRST\_NAME ascending and the DEPARTMENT in descending**

Select \* from Worker order by FIRST\_NAME ASC , DEPARTMENT DESC;



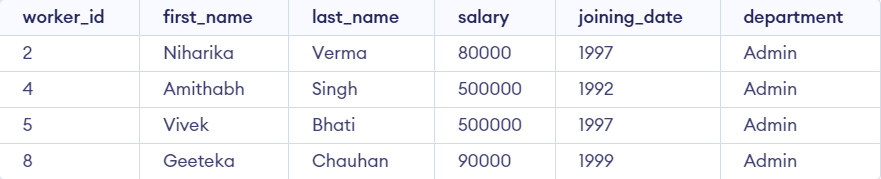
**Q.13 What is an SQL query to print the details of the workers ‘NIHARIKA’ and ‘PRIYANSHA’.**

Select \* from Worker where FIRST\_NAME in ('NIHARIKA','PRIYANSHA');



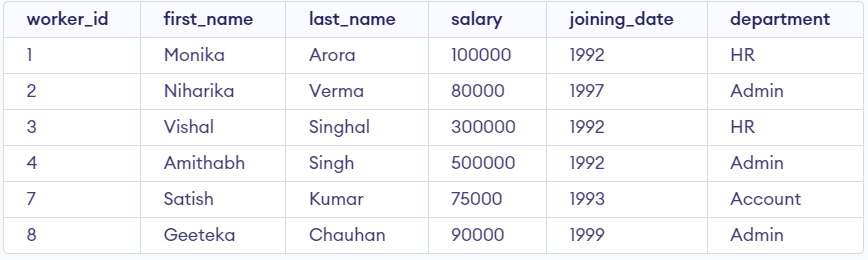
**Q.15 Write an SQL query for printing the details of DEPARTMENT name as “Admin”.**

Select \* from Worker where DEPARTMENT like 'Admin%';



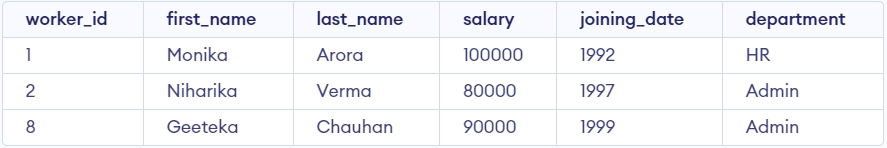
**Q.16 What is an SQL query for printing the details of workers whose FIRST\_NAME Contains ‘A’?**

Select \* from Worker where FIRST\_NAME like '%a%';



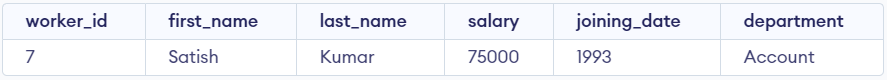
**Q.17 What is an SQL Query for printing the FIRST\_NAME of workers whose name ends with ‘A’?**

Select \* from Worker where FIRST\_NAME like '%a';



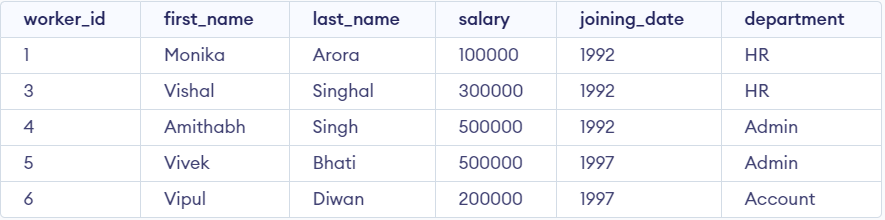
**Q.18 What is an SQL Query for printing the details of the workers whose FIRST\_NAME ends with ‘H’ and contains six alphabets?**

Select \* from Worker where FIRST\_NAME like '\_\_\_\_\_h';



**Q.19 Write an SQL Query for printing the details of workers whose SALARY lies between 100000 and 500000.**

Select \* from Worker where SALARY between 100000 and 500000;

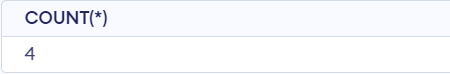


**Q.20 Write an SQL Query for printing the details of workers who joined inFeb’2014**

Select \* from Worker where year(JOINING\_DATE) = 2014 and month(JOINING\_DATE) = 2;

**Q.21 Write an SQL Query for fetching the count of workers in DEOARTMENT with ‘Admin’.**

SELECT COUNT(\*) FROM worker WHERE DEPARTMENT = 'Admin';

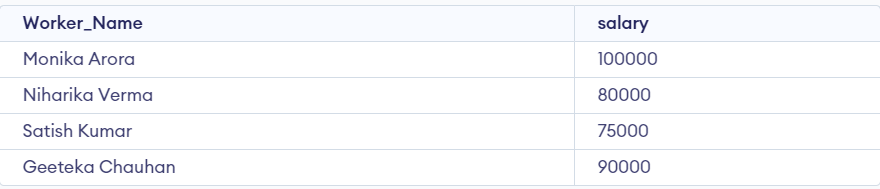


**Q.22 Write an SQL Query for fetching the details of workers with Salaries >= 5000 and <= 100000.**

SELECT CONCAT(FIRST\_NAME, ' ', LAST\_NAME) As Worker\_Name, Salary FROM worker WHERE WORKER\_ID IN (SELECT WORKER\_ID FROM worker WHERE Salary BETWEEN 5000 AND 100000);

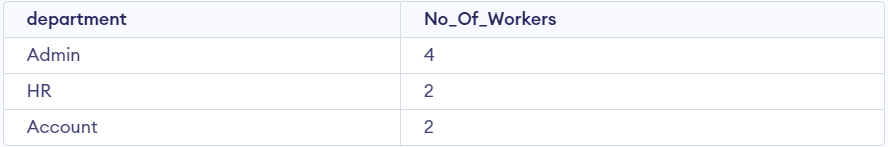
Or

SELECT FIRST\_NAME || ' ' || LAST\_NAME AS Worker\_Name, SalaryFROM workerWHERE WORKER\_IDIN (SELECT WORKER\_ID FROM workerWHERE Salary BETWEEN 5000 AND 100000);



**Q.23 What is an SQL Query for fetching the no. of workers in each department in descending order?**

SELECT DEPARTMENT, count(WORKER\_ID) No\_Of\_Workers FROM worker GROUP BY DEPARTMENT ORDER BY No\_Of\_Workers DESC;



**Q.24 What is an SQL Query for printing the details of workers who are also managers?**

SELECT DISTINCT W.FIRST\_NAME, T.WORKER\_TITLE FROM Worker W INNER JOIN Title T ON W.WORKER\_ID = T.WORKER\_REF\_ID AND T.WORKER\_TITLE in ('Manager');



**Q.25 Write an SQL Query for fetching the details of duplicate records in some fields.**

SELECT WORKER\_TITLE, AFFECTED\_FROM, COUNT(\*) FROM Title GROUP BY WORKER\_TITLE, AFFECTED\_FROM HAVING COUNT(\*) > 1;

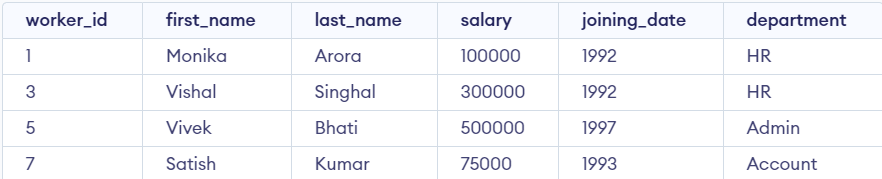


**Q.26 What is an SQL Query for only showing odd rows?**

SELECT \* FROM Worker WHERE MOD (WORKER\_ID, 2) <> 0;

Or

SELECT \* FROM Worker WHERE WORKER\_ID % 2 <> 0;

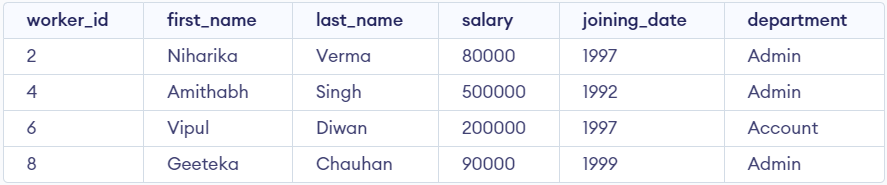


**Q.27 What is an SQL Query for only showing even rows?**

SELECT \* FROM Worker WHERE MOD (WORKER\_ID, 2) = 0;

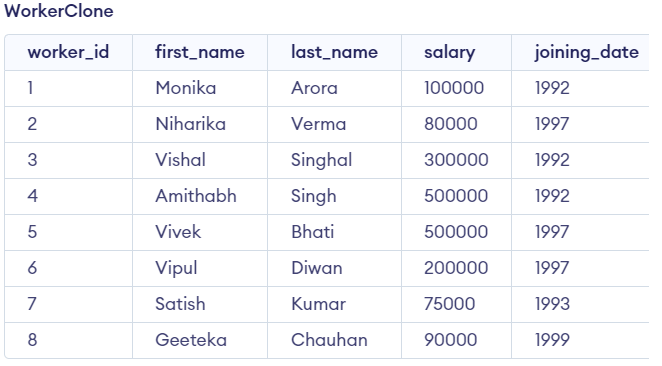
Or

SELECT \* FROM Worker WHERE WORKER\_ID % 2 = 0;



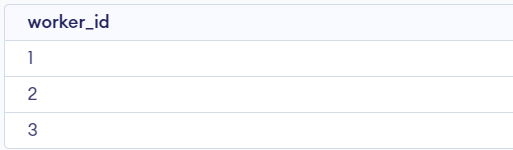
**Q.28 Write an SQL query to clone a new table from another table.**

CREATE TABLE WorkerClone AS SELECT \* FROM Worker;



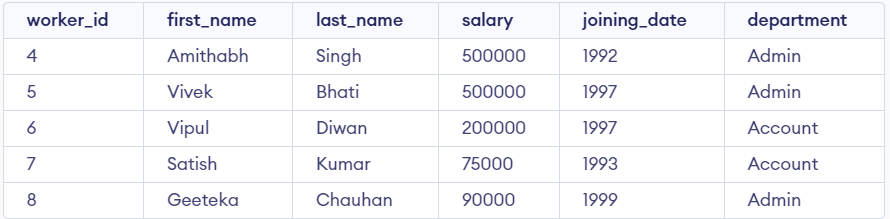
**Q.29 Write an SQL query to fetch intersecting records of two tables.**

SELECT worker\_id FROM worker INTERSECT SELECT worker\_ref\_id FROM Bonus;



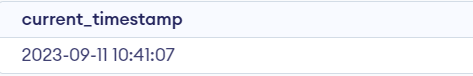
**Q.30 Write an SQL query to show records from one table that another table does not have.**

select \* from worker where worker\_id not in(select worker\_ref\_id from Bonus);



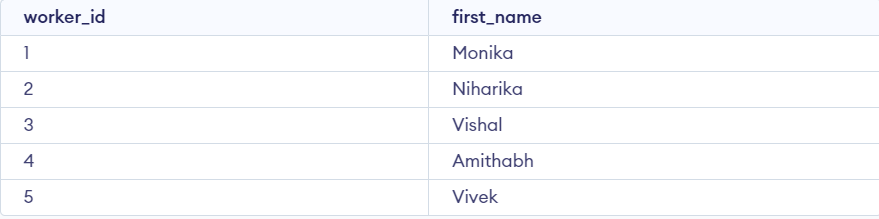
**Q.31 Write an sql query to show the current date and time.**

SELECT current\_timestamp;



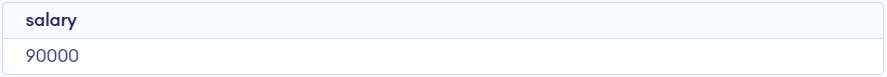
**Q.32 Write an sql query to show the top n (say 5) records of a table.**

SELECT worker\_id, first\_name FROM Worker LIMIT 5;



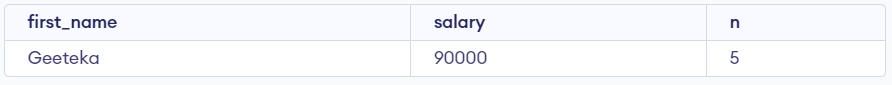
**Q.33. Write an sql query to determine the nth (say n=5) highest salary from a table.**

SELECT DISTINCT Salary FROM worker ORDER BY Salary DESC LIMIT 1 OFFSET 5-1;



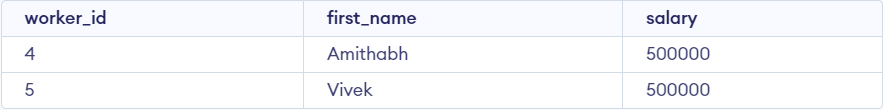
**Q 34. Write an sql query to determine the 5th highest salary without using TOP or limit method.**

SELECT \* FROM ( SELECT first\_name, salary, DENSE\_RANK() OVER (ORDER BY salary DESC) AS n FROM Worker ) AS subquery WHERE n = 5;



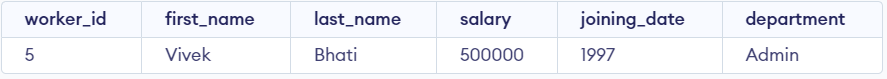
**Q 35. Write an sql query to fetch the list of employees with the same salary**

Select distinct W.worker\_id, W.first\_name, W.salary from Worker W, Worker W1 where W.salary = W1.salary and W.worker\_id != W1.worker\_id;



**Q. 36 Write an sql query to show the second highest salary from a table**

select \* from Worker ORDER BY `salary` DESC limit 1,1;



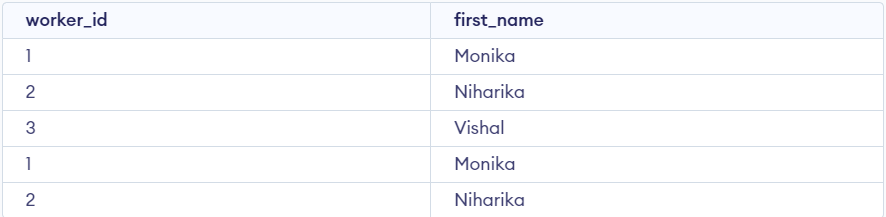
**Q 37. Write an sql query to show one row twice in the results from a table**

select \* from Worker as wid1 where wid1.department = "Admin" union all select \* from Worker as wid2 where wid2.department = "Account"



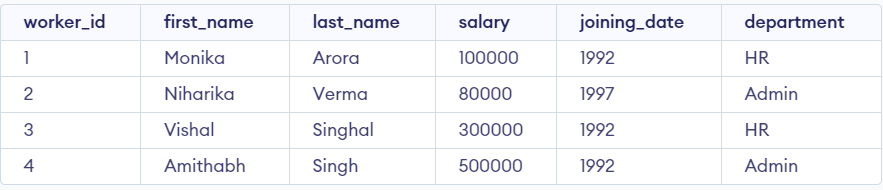
**Q 38. Write an sql query to fetch intersecting records of two tables.**

SELECT Worker.worker\_id, Worker.first\_name FROM Worker INNER JOIN Bonus ON Worker.worker\_id = Bonus.worker\_ref\_id;



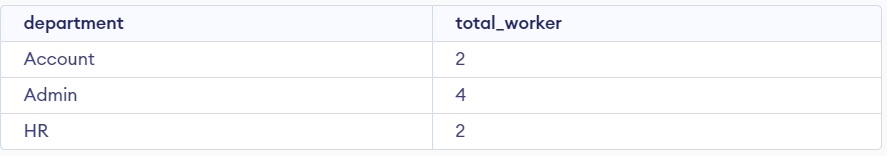
**Q 39. Write an sql query to fetch the first 50% records from a table.**

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



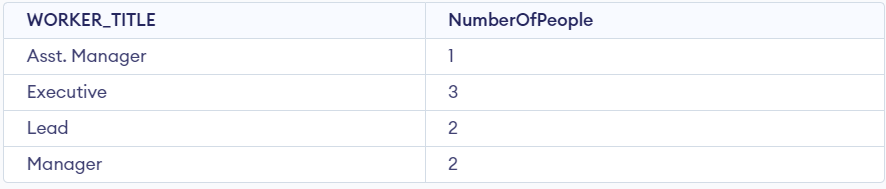
**Q 40. Write an sql query to fetch the departments that have less than five people in them**

select department, count(worker\_id) as total\_worker from Worker group by department having count(worker\_id)>1;



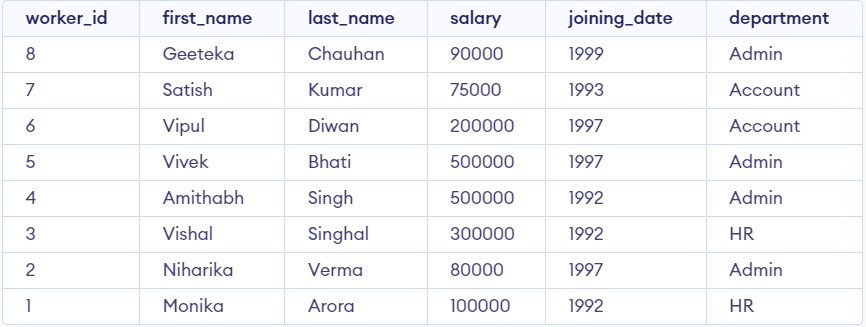
**Q.41. Write an SQL query to show all departments along with the number of people in there.**

SELECT worker\_title, COUNT(\*) AS NumberOfPeople FROM Title GROUP BY worker\_title;



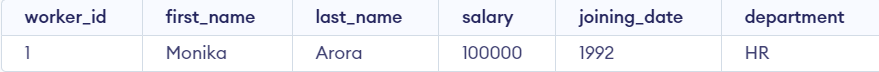
**Q-42. Write an SQL query to show the last record from a table.**

SELECT \* FROM Worker ORDER BY worker\_id DESC



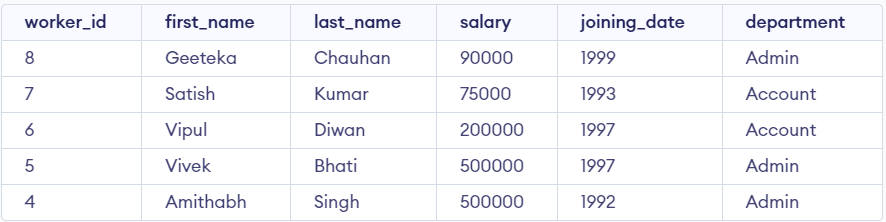
**Q-43. Write an SQL query to fetch the first row of a table.**

SELECT \* FROM worker LIMIT 1;



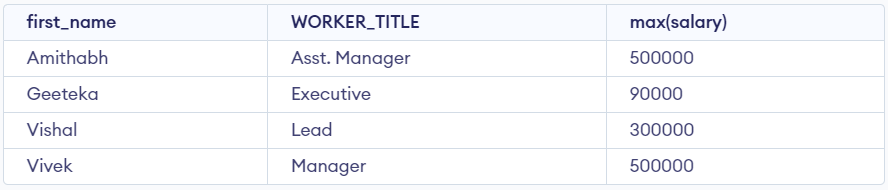
**Q-44. Write an SQL query to fetch the last five records from a table.**

SELECT \* FROM Worker ORDER BY worker\_id DESC LIMIT 5;



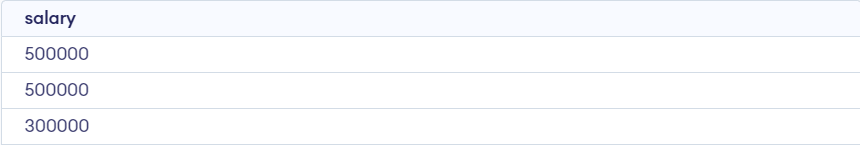
**Q-45. Write an SQL query to print the name of employees having the highest salary in each department.**

select first\_name, worker\_title, max(salary) from worker, title where title.worker\_ref\_id = worker.worker\_id group by worker\_title;



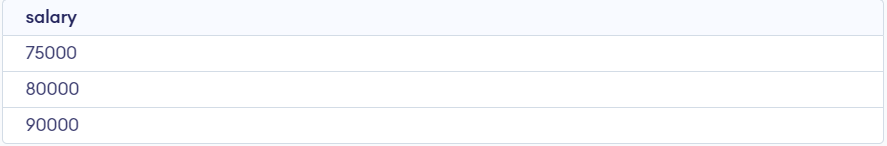
**Q-46. Write an SQL query to fetch three max salaries from a table.**

SELECT salary FROM Worker ORDER BY salary DESC limit 3;



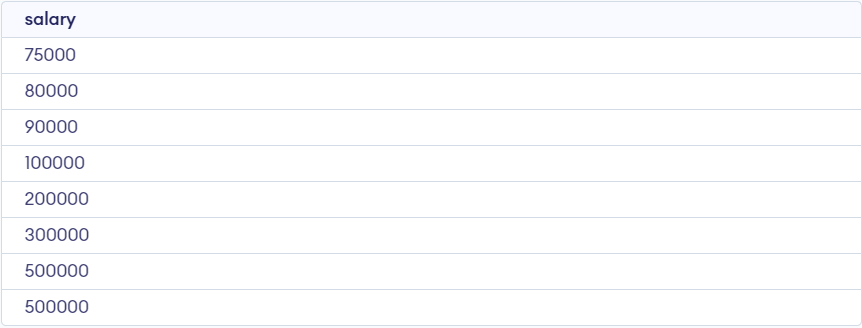
**Q-47. Write an SQL query to fetch three min salaries from a table.**

SELECT DISTINCT salary FROM Worker ORDER BY salary DESC Limit 3;



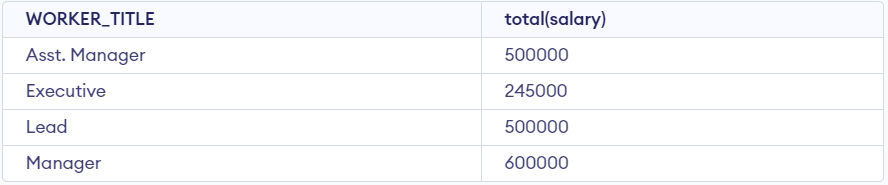
**Q-48. Write an SQL query to fetch nth max salaries from a table.**

SELECT salary FROM Worker ORDER BY salary



**Q-49. Write an SQL query to fetch departments along with the total salaries paid for each of them.**

select worker\_title , total(salary) from title, worker where title.worker\_ref\_id = worker.worker\_id group by worker\_title;



**Q-50. Write an SQL query to fetch the names of workers who earn the highest salary.**

SELECT first\_name FROM worker WHERE salary = (SELECT MAX(salary) FROM worker)

