

Assignment 3

Consider the following employee table and execute the queries based on it

emp_id	f_name	l_name	job_type	Salary	Commission	Dept	Manager_id	DOJ
1	Arun	Khan	Manager	90000		Production		04-Jan-1998
2	Barun	Kumar	Manager	80000		Marketing		09-Feb-1998 ^{Sunday 02}
3	Chitra	Kapoor	Engineer	60000		Production	1	08-Jan-1998
4	Dheeraj	Mishra	Manager	75000		Sales	4	27-Dec-2001
5	Emma	Dutta	Engineer	55000		Production	1	20-Mar-2002
6	Floki	Dutta	Accounts ^{nt}	70000		Accounts		16-Jul-2000
7	Dheeraj	Kumar	Clerk	40000		Accounts	6	01-Jul-2016
8	Saul	Good	Engineer	60000		R&D ^{Production}		06-Sep-2014
9	Mou	Bhat	Clerk	30000		Sales	4	08-Mar-2018
10	Sunny	Deol	Salesman	20000	10000	Marketing	2	31-Mar-2001
11	Bobby	Deol	Engineer	35000		R&D	8	17-Oct-2017
12	Amir	Khan	Salesman	15000	5000	Marketing	2	11-Jan-2013

1. Show f_name, l_name and job_type from employees.

INSERT INTO EMPLOYEE (emp_id, f_name, l_name, job_type, salary, commission, dept, manager_id, doj)
VALUES

- (1, 'Arun', 'Khan', 'Manager', 90000, NULL, 'Production', NULL, '1998-01-04'),
- (2, 'Barun', 'Kumar', 'Manager', 80000, NULL, 'Marketing', NULL, '1998-02-09'),
- (3, 'Chitra', 'Kapoor', 'Engineer', 60000, NULL, 'Production', 1, '1998-01-08'),
- (4, 'Dheeraj', 'Mishra', 'Manager', 75000, NULL, 'Sales', NULL, '2001-12-27'),
- (5, 'Emma', 'Dutta', 'Engineer', 55000, NULL, 'Production', 1, '2002-03-20'),
- (6, 'Floki', 'Dutta', 'Accounts', 70000, NULL, 'Accounts', NULL, '2000-07-16'),
- (7, 'Dheeraj', 'Kumar', 'Clerk', 40000, NULL, 'Accounts', 6, '2016-07-01'),
- (8, 'Saul', 'Good', 'Engineer', 60000, NULL, 'R&D', NULL, '2014-09-06'),
- (9, 'Mou', 'Bhat', 'Clerk', 30000, NULL, 'Sales', 4, '2018-03-08'),
- (10, 'Sunny', 'Deol', 'Salesman', 20000, 10000, 'Marketing', 2, '2001-03-31'),
- (11, 'Bobby', 'Deol', 'Engineer', 35000, NULL, 'R&D', 8, '2017-10-17'),
- (12, 'Amir', 'Khan', 'Salesmen', 15000, 5000, 'Marketing', 2, '2013-01-11');

select f_name, l_name, job_type from EMPLOYEE;

	f_name	l_name	job_type
►	Arun	Khan	Manager
	Barun	Kumar	Manager
	Chitra	Kapoor	Engineer
	Dheeraj	Mishra	Manager
	Emma	Dutta	Engineer
	Floki	Dutta	Accounts
	Dheeraj	Kumar	Clerk
	Saul	Good	Engineer
	Mou	Bhat	Clerk
	Sunny	Deol	Salesman
	Bobby	Deol	Engineer
	Amir	Khan	Salesmen

2. Show employee details in the following fashion:

Employee details

Arun is a manager

→select f_name, job_type from EMPLOYEE

where f_name = 'Arun' and job_type = 'Manager';

	f_name	job_type
▶	Arun	Manager

3. Show the monthly salary details in the following fashion Monthly Salary Details Arun's monthly salary is Rs. 90000

select f_name, job_type, salary from EMPLOYEE

where emp_id = 1;

	f_name	job_type	salary
▶	Arun	Manager	90000

Consider the Department table to answer the queries

d_name	d_loc	HOD_id
Sales	Kol	4
Accounts	Delhi	6
Production	Kol	1
Marketing	Kol	2
R & D	Marketing	8

4. Show the different department names from department table

select d_name from department;

	d_name
▶	Accounts
	marketing
	production
	R&D
	Sales
★	NULL

5. Show the employee names who works in 'Sales'

select f_name, l_name, dept from EMPLOYEE

where dept = 'sales';

	f_name	l_name	dept
▶	Dheeraj	Mishra	Sales
	Mou	Bhat	Sales

6. Show the employee names who gets salary of more than 50000 per month

select f_name, l_name, salary from EMPLOYEE
where salary>50000;

	f_name	l_name	salary
▶	Arun	Khan	90000
	Barun	Kumar	80000
	Chitra	Kapoor	60000
	Dheeraj	Mishra	75000
	Emma	Dutta	55000
	Floki	Dutta	70000
	Saul	Good	60000

7. Show the details of the employee whose manager id is not 1

select * from EMPLOYEE

where manager_id!=1;

	emp_id	f_name	l_name	job_type	salary	dept	commission	manager_id	doj
▶	7	Dheeraj	Kumar	Clerk	40000	Accounts	NULL	6	2016-07-01
	9	Mou	Bhat	Clerk	30000	Sales	NULL	4	2018-03-08
	10	Sunny	Deol	Salesman	20000	Marketing	10000	2	2001-03-31
	11	Bobby	Deol	Engineer	35000	R&D	NULL	8	2017-10-17
	12	Amir	Khan	Salesmen	15000	Marketing	5000	2	2013-01-11
★	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

8. Show the employee details whose salary ranges between 40000 and 70000

select f_name, l_name, salary from EMPLOYEE

where salary>40000 AND salary<70000;

	f_name	l_name	salary
▶	Chitra	Kapoor	60000
	Emma	Dutta	55000
	Saul	Good	60000

9. Show the details of the employees who works under the manager having id 1, 6 and 8

select * from EMPLOYEE

where manager_id=1 or manager_id= 6 or manager_id=8;

	emp_id	f_name	l_name	job_type	salary	dept	commission	manager_id	doj
▶	3	Chitra	Kapoor	Engineer	60000	Production	NULL	1	1998-01-08
	5	Emma	Dutta	Engineer	55000	Production	NULL	1	2002-03-20
	7	Dheeraj	Kumar	Clerk	40000	Accounts	NULL	6	2016-07-01
	11	Bobby	Deol	Engineer	35000	R&D	NULL	8	2017-10-17
★	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

10. Select the f_name and salary of those employees whose last name starts with 'K'

select f_name, salary from EMPLOYEE

where l_name like "k%";

	f_name	salary
▶	Arun	90000
	Barun	80000
	Chitra	60000
	Dheeraj	40000
	Amir	15000

11. Select the f_name and salary of those employees whose last name starts with 'K' and ends with 'R'
 select f_name, salary from EMPLOYEE
 where l_name like "K%" AND l_name like "%R";

	f_name	salary
▶	Barun	80000
	Chitra	60000
	Dheeraj	40000

12. Show the details of those employees where 3rd letter of l_name is 'o'
 select * from EMPLOYEE
 where l_name like "__o%";

	emp_id	f_name	l_name	job_type	salary	dept	commission	manager_id	doj
▶	8	Saul	Good	Engineer	60000	R&D	NULL	NULL	2014-09-06
	10	Sunny	Deol	Salesman	20000	Marketing	10000	2	2001-03-31
	11	Bobby	Deol	Engineer	35000	R&D	NULL	8	2017-10-17
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

13. Select the details of those employees who works as an engineer with monthly salary more than 50000
 select * from EMPLOYEE
 where job_type = "Engineer" AND salary > 50000;

	emp_id	f_name	l_name	job_type	salary	dept	commission	manager_id	doj
▶	3	Chitra	Kapoor	Engineer	60000	Production	NULL	1	1998-01-08
	5	Emma	Dutta	Engineer	55000	Production	NULL	1	2002-03-20
	8	Saul	Good	Engineer	60000	R&D	NULL	NULL	2014-09-06
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

14. Select the employees whose department is 'Production' or monthly salary is more than 60000 per month.
 select * from EMPLOYEE
 where dept = "production" or salary > 60000;

	emp_id	f_name	l_name	job_type	salary	dept	commission	manager_id	doj
▶	1	Arun	Khan	Manager	90000	Production	NULL	NULL	1998-01-04
	2	Barun	Kumar	Manager	80000	Marketing	NULL	NULL	1998-02-09
	3	Chitra	Kapoor	Engineer	60000	Production	NULL	1	1998-01-08
	4	Dheeraj	Mishra	Manager	75000	Sales	NULL	NULL	2001-12-27
	5	Emma	Dutta	Engineer	55000	Production	NULL	1	2002-03-20
	6	Floki	Dutta	Accounts	70000	Accounts	NULL	NULL	2000-07-16
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

15. Find the minimum salary, maximum salary, total salary, average salary of the employees who work in 'Sales' department

select min(salary) as minimum_Salary, max(salary) as maximum_salary, sum(salary) as total_salary, avg(salary) as average_Salary from EMPLOYEE
where dept = 'Sales';

	minimum_Salary	maximum_salary	total_salary	average_Salary
▶	30000	75000	105000	52500.0000

16. Find the employee l_name that is first and f_name that is last if they are arranged in an order

select l_name from EMPLOYEE

order by l_name ASC limit 1;

select f_name from EMPLOYEE

order by f_name DESC limit 1;

	f_name		l_name
▶	Sunny	▶	Bhat

17. Find the number of employees working in each department

select dept, count(*) from EMPLOYEE

GROUP BY dept;

	dept	count(*)
▶	Production	3
	Marketing	3
	Sales	2
	Accounts	2
	R&D	2

18. Find the number of departments from employee table

select count(distinct dept) as number_of_Dept from EMPLOYEE;

	number_of_Dept
▶	5

19. Find the average commission of the employees.

select avg(commission) as average_commission from EMPLOYEE;

	average_commission
▶	7500.0000

20. Find the average salaries of the employees department wise

select dept, avg(salary) as average_salary from EMPLOYEE

GROUP BY dept;

	dept	average_salary
▶	Production	68333.3333
	Marketing	38333.3333
	Sales	52500.0000
	Accounts	55000.0000
	R&D	47500.0000

21. Find the sum of salary of different job_type according to different departments

select job_type, dept, sum(salary) as sum_of_Salary from EMPLOYEE

GROUP BY dept, job_type;

	job_type	dept	sum_of_Salary
▶	Manager	Production	90000
	Manager	Marketing	80000
	Engineer	Production	115000
	Manager	Sales	75000
	Accounts	Accounts	70000
	Clerk	Accounts	40000
	Engineer	R&D	95000
	Clerk	Sales	30000
	Salesman	Marketing	20000
	Salesmen	Marketing	15000

22. Find the department name and average salaries of those departments whose average salary is greater than 40000

select dept, avg(salary) as average_salaries from EMPLOYEE

group by dept

HAVING avg(salary) > 40000;

	dept	average_salaries
▶	Production	68333.3333
	Sales	52500.0000
	Accounts	55000.0000
	R&D	47500.0000

23. Find the department name and maximum salaries of those departments whose maximum salary is greater than 55000

select dept, max(salary) as maximum_Salaries from EMPLOYEE

GROUP BY dept

HAVING max(salary) > 55000;

	dept	maximum_Salaries
▶	Production	90000
	Marketing	80000
	Sales	75000
	Accounts	70000
	R&D	60000

24. Display the job_type and total monthly salary for each job_type where total payroll is exceeding 100000

select job_type, sum(salary) as total_salary from EMPLOYEE

GROUP BY job_type

HAVING total_salary > 100000;

	job_type	total_salary
▶	Manager	245000
	Engineer	210000

25. Display the name of the department having maximum average salary

select dept, avg(salary) as average_Salary FROM EMPLOYEE

GROUP BY dept

ORDER BY average_Salary DESC

limit 1;

	dept	average_Salary
▶	Production	68333.3333