

@here are some practice questions for Oracle

1. How can you display all the data in Departments table?

```
SELECT * from HR.Departments;
```

2. How can you display department id from Employees table?

```
SELECT department_id FROM HR.EMPLOYEES;
```

3. How can you display all the phone numbers from Employees?

```
SELECT PHONE_NUMBER from HR.EMPLOYEES;
```

4. How can you display last name and hire date for all Employees?

```
SELECT Last_Name,Hire_Date from HR.EMPLOYEES;
```

5. Please display department id and department name

```
SELECT DEPARTMENT_ID, DEPARTMENT_NAME FROM HR.DEPARTMENTS;
```

6. How can we find the salary of employee 120?

```
SELECT SALARY FROM HR.EMPLOYEES WHERE EMPLOYEE_ID=120;
```

7. How can you display unique job ids in the company from the employees table.

```
SELECT DISTINCT JOB_ID FROM HR.EMPLOYEES;
```

8. How to display first name, job id, salary for all employees who earn less than or equal to 10000 monthly?

```
SELECT FIRST_NAME,JOB_ID,SALARY FROM HR.EMPLOYEES WHERE SALARY<=10000;
```

9. How to display all the information for Stock Clerks.

```
SELECT * FROM HR.EMPLOYEES WHERE JOB_ID='ST_CLERK';
```

10. How to display information about employees who report to the manager 114?

```
SELECT * FROM HR.EMPLOYEES WHERE MANAGER_ID=114;
```

11. How to figure out first name, last name, department id of employees that do not get commission and display last names in alphabetical order.

```
SELECT first_name, last_name, department_id FROM hr.employees WHERE commission_pct IS NULL  
ORDER BY last_name;
```

12. How to display all the information for IT Programmers showing the highest paying employee on top?

```
SELECT * FROM hr.employees WHERE JOB_ID= 'IT_PROG' ORDER BY SALARY DESC;
```

13. How to display all employees who was hired on June 17th 2003

```
SELECT * FROM hr.employees WHERE HIRE_DATE = TO_DATE('17-JUN-03', 'DD-MON-YY');
```

14. How to display first name, Salary, and job id of employees who earn more than or equal to 4000 or working as IT programmers.

```
SELECT FIRST_NAME,SALARY,JOB_ID FROM hr.employees WHERE SALARY >= 4000 OR JOB_ID = 'IT_PROG';
```

15. How can we see the first name, Salary, and job id of employees who earn more than 3000 and they work as stock clerks. Also need to see returned data sorted by name.

```
SELECT FIRST_NAME,SALARY,JOB_ID FROM hr.employees WHERE SALARY > 3000 AND JOB_ID = 'ST_CLERK' ORDER BY FIRST_NAME;
```

16. How can we find all employees who do not work in Department 50 and are not stock clerks.

```
SELECT * FROM HR.EMPLOYEES WHERE DEPARTMENT_ID <> 50 AND JOB_ID <> 'ST_CLERK';
```

17. How can we see all people whose job id belongs to Sales?

```
SELECT * FROM HR.EMPLOYEES WHERE JOB_ID IN (SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE) LIKE '%SALES%');
```

18. How can we display all employees who work for Departments 50, 60, 80

```
SELECT * FROM HR.EMPLOYEES WHERE DEPARTMENT_ID IN(50,60,80);
```

19. Verify everyone who was hired on June of 2002. Please display in ascending order by name.

```
SELECT * FROM HR.EMPLOYEES WHERE EXTRACT(MONTH FROM HIRE_DATE) = 6 AND EXTRACT(YEAR FROM HIRE_DATE) = 2002 ORDER BY FIRST_NAME;
```

20. Display all employees whose last name ends with 'a'.

```
SELECT * FROM HR.EMPLOYEES WHERE LAST_NAME LIKE '%a';
```

21. Verify all employees who got hired from 17 June 2003 to 05 February 2006.

```
SELECT * FROM HR.EMPLOYEES  
WHERE HIRE_DATE BETWEEN TO_DATE('17-JUN-02', 'DD-MON-YY') AND TO_DATE('05-FEB-06', 'DD-MON-YY');
```

22. Verify all the employees who are programmers, clerks and hr.

```
SELECT * FROM HR.EMPLOYEES WHERE JOB_ID IN (SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE) LIKE '%PROGRAMMER%' UNION  
SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE) LIKE '%CLERK%' UNION SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE)  
LIKE '%HUMAN RESOURCES%');
```

23. Display all countries except Germany, Italy and Kuwait.

```
SELECT * FROM HR.countries WHERE country_name NOT IN ('Germany', 'Italy', 'Kuwait');
```

24. Display all department names that start with 'C' and don't forget to sort results by department id in descending order.

```
SELECT department_name FROM HR.departments WHERE department_name LIKE 'C%' ORDER BY department_id DESC;
```

25. Display all employees' first names in which the third letter of the name is "u".

```
SELECT first_name FROM hr.employees WHERE SUBSTR (first_name, 3, 1) = 'u';
```

26. Display last name in uppercase, first name in lowercase and email in init capital.

```
SELECT UPPER(last_name) AS last_name, LOWER(first_name) AS first_name, INITCAP(email) AS email FROM hr.employees;
```

27. Verify how many employees don't get the commission?

```
SELECT COUNT(*) AS num_employees_without_commission FROM HR.employees WHERE commission_pct IS NULL;
```

28. Display maximum salary for each job ids?

```
SELECT job_id, MAX(salary) AS max_salary FROM HR.employees GROUP BY job_id;
```

29. Display the number of people, average salary, and max salary in each department

```
SELECT department_id, COUNT(*) AS number_of_people, AVG(salary) AS average_salary, MAX(salary) AS max_salary FROM HR.employees GROUP BY department_id;
```

30. How can we find how many IT Programmers work in the company?

```
SELECT COUNT(*) AS num_IT_programmers FROM HR.EMPLOYEES WHERE JOB_ID IN (SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE) LIKE '%PROGRAMMER%');
```

31. How many employees' first names start with A?

```
SELECT COUNT(*) AS num_employees_with_a FROM HR.employees WHERE first_name LIKE 'A%';
```

32. Can you find the average salary in each department? Please sort results by the salary.

```
SELECT department_id, AVG(salary) AS average_salary FROM HR.employees GROUP BY department_id ORDER BY average_salary;
```

33. Display how many Sales Representative, Accountant and Stock managers are hired by the company?

```
SELECT job_id, COUNT(*) AS num_hired FROM HR.EMPLOYEES WHERE JOB_ID IN ( SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE)= 'ACCOUNTANT' UNION SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE)= 'SALES REPRESENTATIVE' UNION SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE)= 'STOCK MANAGER') GROUP BY job_id;
```

34. How can you find out AVG salary for employees per departments where average salary is more than 6500

```
SELECT department_id, AVG(salary) AS average_salary FROM hr.employees GROUP BY department_id HAVING AVG(salary) > 6500;
```

35. How can I see the number of employees that work in a department who's total number is more than 5 people?

```
SELECT department_id, COUNT(*) AS employee_count FROM hr.employees GROUP BY department_id HAVING COUNT(*) > 5;
```

36. How can I see max salary for all job ids where max salary will be more than 4000.

```
SELECT job_id, MAX(salary) AS max_salary FROM hr.employees GROUP BY job_id HAVING MAX(salary) > 4000;
```

37. Please display the max highest salaries per job id on top.

```
SELECT job_id, MAX(salary) AS max_salary FROM hr.employees GROUP BY job_id HAVING MAX(salary) > 4000 ORDER BY max_salary DESC;
```

38. How can I find out the average salary of people working for departments 80 through 120, but I want to see only those departments where the average salary is between 8000 to 10000?

```
SELECT department_id, AVG(salary) AS average_salary FROM hr.employees WHERE department_id BETWEEN 80 AND 120 GROUP BY department_id HAVING AVG(salary) BETWEEN 8000 AND 10000;
```

39. List all employees who were hired after Mavris?

```
SELECT e.* FROM hr.employees e JOIN hr.employees m ON e.hire_date > m.hire_date WHERE m.last_name = 'Mavris';
```

40. How to retrieve information about the employee who earns the lowest salary?

```
SELECT * FROM hr.employees ORDER BY salary FETCH FIRST 1 ROW ONLY;
```

41. Display all country names that belong to Europe?

```
SELECT country_name FROM hr.countries WHERE region_id = 1;
```

42. Count of employees who earn more than average salary?

```
SELECT COUNT(*) AS employees_above_avg_salary FROM hr.employees WHERE salary > (SELECT AVG(salary) FROM hr.employees);
```

43. How to display the name of the department where Steven King works?

```
SELECT d.department_name FROM hr.employees e JOIN hr.departments d ON e.department_id = d.department_id WHERE e.last_name = 'King' AND e.first_name = 'Steven';
```

44. Can you display information of employees who work in Seattle?

```
SELECT e.*, loc.CITY FROM HR.EMPLOYEES e JOIN HR.DEPARTMENTS dept ON e.DEPARTMENT_ID = dept.DEPARTMENT_ID JOIN HR.LOCATIONS loc ON dept.LOCATION_ID = loc.LOCATION_ID WHERE loc.CITY = 'Seattle';
```

45. How can you display the third highest salary?

```
SELECT salary FROM (SELECT salary, DENSE_RANK() OVER (ORDER BY salary DESC) AS salary_rank FROM HR.employees) ranked_salaries WHERE salary_rank = 3;
```

46. Display employee id, last name, department name for each employee.

```
SELECT e.employee_id, e.last_name, d.department_name FROM HR.employees e JOIN HR.departments d ON e.department_id = d.department_id;
```

47. Display street address, city, country id and country name.

```
SELECT loc.street_address, loc.city, c.country_id, c.country_name FROM HR.locations loc JOIN HR.countries c ON loc.country_id = c.country_id;
```

48. Show the employee id , last name, job id, salary , department id, department name for employees who are IT Programmers

49. Display department id, department names, country id and country names.

```
SELECT d.DEPARTMENT_ID, d.DEPARTMENT_NAME, c.COUNTRY_ID, c.COUNTRY_NAME FROM HR.DEPARTMENTS d JOIN HR.LOCATIONS l ON d.LOCATION_ID = l.LOCATION_ID JOIN HR.COUNTRIES c ON l.COUNTRY_ID = c.COUNTRY_ID;
```

50. Display employee id, department name, and department id for departments 60 and 80.

```
SELECT e.employee_id, d.department_name, d.department_id FROM HR.EMPLOYEES e JOIN HR.DEPARTMENTS d ON e.department_id = d.department_id WHERE d.department_id IN (60, 80);
```

51. Display employee id, last name, salary, department name using table alias and sort results based on salary.

```
SELECT e.employee_id, e.last_name, e.salary, d.department_name FROM HR.EMPLOYEES e JOIN HR.DEPARTMENTS d ON e.department_id = d.department_id ORDER BY e.salary;
```

52. Display employees employee id, first name, last name, department

```
SELECT e.employee_id, e.first_name, e.last_name, d.department_name, c.country_name FROM HR.EMPLOYEES e
JOIN HR.DEPARTMENTS d ON e.department_id = d.department_id JOIN HR.LOCATIONS l ON d.location_id = l.location_id
JOIN HR.COUNTRIES c ON l.country_id = c.country_id;
```

name and country name

53. Display department id, department names, country id and country names.

```
SELECT d.DEPARTMENT_ID, d.DEPARTMENT_NAME, c.COUNTRY_ID, c.COUNTRY_NAME FROM HR.DEPARTMENTS d
JOIN HR.LOCATIONS l ON d.LOCATION_ID = l.LOCATION_ID JOIN HR.COUNTRIES c ON l.COUNTRY_ID = c.COUNTRY_ID;
```

54. Display employee id, department name, and department id for departments 60 and 80.

```
SELECT e.employee_id, d.department_name, d.department_id FROM HR.EMPLOYEES e
JOIN HR.DEPARTMENTS d ON e.department_id = d.department_id WHERE d.department_id IN (60, 80);
```

55. Display employee id, last name, salary, department name and sort results based on salary.

```
SELECT e.employee_id, e.last_name, e.salary, d.department_name FROM HR.EMPLOYEES e
JOIN HR.DEPARTMENTS d ON e.department_id = d.department_id ORDER BY e.salary;
```

56. Display employees employee id, first name, last name, department name and country name

```
SELECT e.employee_id, e.first_name, e.last_name, d.department_name, c.country_name
FROM HR.EMPLOYEES e
JOIN HR.DEPARTMENTS d ON e.department_id = d.department_id
JOIN HR.LOCATIONS l ON d.location_id = l.location_id
JOIN HR.COUNTRIES c ON l.country_id = c.country_id;
```

Question 48: Show the employee id , last name, job id, salary , department id, department name for employees who are IT Programmers.

Answer:

```
SELECT e.employee_id, e.last_name, e.job_id, e.salary, e.department_id, d.department_name
FROM hr.employees e
JOIN hr.departments d ON e.department_id = d.department_id
WHERE e.job_id IN (SELECT JOB_ID FROM HR.JOBS WHERE UPPER(JOB_TITLE) LIKE '%PROGRAMMER%');
```