**SQL Project Questions With Answer(Query)**

**# HR Database Exercises #**

1. **Write a query to display the names (first\_name, last\_name) using alias name “First Name", "Last Name".**

* select first\_name 'First Name', last\_name 'Last Name' from employees;

1. **Write a query to get unique department ID from employee table.**

* select distinct department\_id from employees;

1. **Write a query to get all employee details from the employee table order by first name, descending.**

* select \* from employees order by first\_name desc;

1. **Write a query to get the names (first\_name, last\_name), salary, PF of all the employees (PF is calculated as 15% of salary).**

* select first\_name, last\_name, salary, salary\*0.15 PF from employees;

1. **Write a query to get the employee ID, names (first\_name, last\_name), salary in ascending order of salary.**

* select employee\_id, first\_name, last\_name, salary from employees order by salary asc;

1. **Write a query to get the total salaries payable to employees.**

* select sum(salary) from employees;

1. **Write a query to get the maximum and minimum salary from employees table.**

* select max(salary), min(salary) from employees;

1. **Write a query to get the average salary and number of employees in the employees table.**

* Select avg(salary), count(employee\_is) from employees;

1. **Write a query to get the number of employees working with the company.**

* Select count(employee\_id) from employees;

1. **Write a query to get the number of jobs available in the employees table**

* select count(distinct job\_id) from employees;

1. **Write a query get all first name from employees table in upper case.**

* Select upper(first\_name) from employees;

1. **Write a query to get the first 3 characters of first name from employees table.**

* select substring(first\_name,3) from employees;
* select left(first\_name,3) from employees;
* select mid(first\_name,1,3) from employees;

1. **Write a query to get first name from employees table after removing white spaces from both side**

* select trim(first\_name) from employees;

1. **Write a query to get the length of the employee names (first\_name, last\_name) from employees table.**

* select first\_name, last\_name, length(first\_name) ,length(last\_name),length(first\_name) + length(last\_name) as total lrgth from employees;

1. **Write a query to check if the first\_name fields of the employees table contains numbers.**

* select first\_name from employees where first\_name regexp '[0-9]';

1. **Write a query to display the name (first\_name, last\_name) and salary for all employees whose salary is not in the range $10,000 through $15,000**

* select first\_name,last\_name,salary from employees where salary not between 10000 and 15000;

1. **Write a query to display the name (first\_name, last\_name) and department ID of all employees in departments 30 or 100 in ascending order**

* select first\_name,last\_name,department\_id from employees where department\_id in (30,100) order by department\_id;
* select first\_name,last\_name,department\_id from employees where department\_id = 30 or department\_id=100 order by department\_id asc;

1. **Write a query to display the name (first\_name, last\_name) and salary for all employees whose salary is not in the range $10,000 through $15,000 and are in department 30 or 100.**

* select department\_id,first\_name, last\_name, salary from employees where salary not between 10000 and 15000 and department\_id=30 or department\_id=100 order by department\_id;
* select department\_id,first\_name, last\_name, salary from employees where salary not between 10000 and 15000 and department\_id in (30,100) order by department\_id;

1. **Write a query to display the name (first\_name, last\_name) and hire date for all employees who were hired in 1987**

* select first\_name, last\_name, hire\_date from employees where year(hire\_date) like '1987%';
* select first\_name,last\_name, hire\_date from employees where year(hire\_date)=1987;

1. **Write a query to display the first\_name of all employees who have both "b" and "c" in their first name**

* select first\_name from employees where first\_name like '%b%' and first\_name like '%c%';

1. **Write a query to display the last name, job, and salary for all employees whose job is that of a Programmer or a Shipping Clerk, and whose salary is not equal to $4,500, $10,000, or $15,000.**

* select last\_name, job\_title, salary from emp\_details\_view where job\_title in ('Programmer','Shipping Clerk') and salary <> 4500 or salary or 10000 or salary <> 15000;
* select last\_name,job\_id,salary from emp\_details\_view where job\_title in ('Programmer', 'Shipping Clerk') and salary not in (4500,10000,15000);
* select employees.last\_name, employees.salary, jobs.job\_title from employees inner join jobs on employees.job\_id=jobs.job\_id and job\_title in ('Programmer', 'Shipping Clerk') where salary<>4500 or salary<>10000 or salary<>15000;

1. **Write a query to display the last name of employees whose names have exactly 6 characters**

* select last\_name from employees where last\_name like '\_\_\_\_\_\_';

1. **Write a query to display the last name of employees having 'e' as the third character.**

* select last\_name from employees where last\_name like '\_\_e%';

1. **Write a query to get the job\_id and related employee's id Partial output of the query.**

* select job\_id, group\_concat(employee\_id) as EmployeeID from employees group by job\_id;

1. **Write a query to update the portion of the phone\_number in the employees table, within the phone number the substring '124' will be replaced by '999'**

* update employees set phone\_number = replace(phone\_number, '124','999') where phone\_number like '%124';

1. **Write a query to get the details of the employees where the length of the first name greater than or equal to 8**

* select \* from employees where length(first\_name)>=8;

1. **Write a query to append '@example.com' to email field.**

* update employees set email=concat(email, '@example.com');

1. **Write a query to extract the last 4 character of phone numbers**

* select right(phone\_number,4) phone\_number from employees;

1. **Write a query to get the last word of the street address.**

* select location\_id, street\_address, substring\_index(street\_address,' ',-1) from locations;

1. **Write a query to get the locations that have minimum street length.**

* select street\_address from locations where length(street\_address)<=(select min(length(street\_address)) from locations);

1. **Write a query to display the first word from those job titles which contains more than one words**

* select job\_title, substr(job\_title,1, instr(job\_title, ' ')-1) job\_title\_more\_then\_one\_wrod from jobs;

1. **Write a query to display the length of first name for employees where last name contain character 'c' after 2nd position**

* select first\_name, last\_name from employees where instr(last\_name,'C') > 2;

1. **Write a query that displays the first name and the length of the first name for all employees whose name starts with the letters 'A', 'J' or 'M'. Give each column an appropriate label. Sort the results by the employees' first names.**

* select first\_name as 'Name', length(first\_name) as 'Length' from employees where first\_name like 'A%' or first\_name like 'J%' or first\_name like 'm%' order by first\_name;
* select first\_name as 'Name', length(first\_name) as 'Length' from employees where left(first\_name,1) in ('A','J','M') order by first\_name;

1. **Write a query to display the first name and salary for all employees. Format the salary to be 10 characters long, left-padded with the $ symbol. Label the column SALARY**

* select first\_name, lpad(salary, 10, '$') salary from employees;

1. **Write a query to display the first eight characters of the employees' first names and indicates the amounts of their salaries with '$' sign. Each '$' sign signifies a thousand dollars. Sort the data in descending order of salary.**

* select left(first\_name,8), salary, repeat('$', round(salary/1000)) 'salary ($)' from employees order by salary desc;

1. **Write a query to display the employees with their code, first name, last name and hire date who hired either on seventh day of any month or seventh month in any year.**

* select employee\_id, first\_name, last\_name, hire\_date from employees where day(hire\_date)=7 or month(hire\_date)=7;

**# Northwind Database Exercises #**

1. **Write a query to get Product name and quantity/unit.**

* Select product\_name, quantityperunit from products;

1. **Write a query to get current Product list (Product ID and name)**

* select ProductID,productname from products where Discontinued = 0 order by ProductName;

1. **Write a query to get discontinued Product list (Product ID and name).**

* select ProductID,productname from products where Discontinued = 1 order by ProductName;

1. **Write a query to get most expense and least expensive Product list (name and unit price)**

* select productname, unitprice from products order by UnitPrice desc;

1. **Write a query to get Product list (id, name, unit price) where current products cost less than $20**

* select productID, productName, unitprice from products where UnitPrice < 20 order by UnitPrice desc;

1. **Write a query to get Product list (id, name, unit price) where products cost between $15 and $25**

* select productID, productName, unitprice from products where UnitPrice between 15 and 25 order by UnitPrice desc;

1. **Write a query to get Product list (name, unit price) of above average price**

* Select productName, unitprice from products where unitprice > (Select avg(unitprice) from products);

1. **Write a query to get Product list (name, unit price) of ten most expensive products**

* Select productname, unitprice from products order by unitprice desc limit 10;

1. **Write a query to count current and discontinued products**

* select count(discontinued) discontinude\_products from products group by Discontinued;

1. **Write a query to get Product list (name, units on order , units in stock) of stock is less than the quantity on order**

* select productname, unitsonorder, unitsinstock from products where unitsinstock < unitsonorder;