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Display total number of records in each table

```
MySQL 8.0 Command Line Client

mysql> use hr_db;
Database changed
mysql> show tables;
+-------------------+
| Tables_in_hr_db   |
+-------------------+
| countries         |
| departments       |
| emp_details_view  |
| employees         |
| job_history       |
| jobs              |
| locations         |
| regions           |
+-------------------+
8 rows in set (0.00 sec)

mysql> select count(*) from countries;
+----------+
| count(*) |
+----------+
|       25 |
+----------+
1 row in set (0.00 sec)

mysql> select count(*) from departments;
+----------+
| count(*) |
+----------+
|       27 |
+----------+
1 row in set (0.00 sec)

mysql> select count(*) from emp_details_view;
+----------+
| count(*) |
+----------+
|      106 |
+----------+
1 row in set (0.00 sec)

mysql> select count(*) from employees;
+----------+
| count(*) |
+----------+
|      107 |
+----------+
1 row in set (0.00 sec)
```

```
mysql> select count(*) from job_history;
+----------+
| count(*) |
+----------+
|       10 |
+----------+
1 row in set (0.00 sec)

mysql> select count(*) from jobs;
+----------+
| count(*) |
+----------+
|       19 |
+----------+
1 row in set (0.00 sec)

mysql> select count(*) from locations;
+----------+
| count(*) |
+----------+
|       23 |
+----------+
1 row in set (0.00 sec)

mysql> select count(*) from regions;
+----------+
| count(*) |
+----------+
|        4 |
+----------+
1 row in set (0.00 sec)
```

Display the number of employees in each department.

```
mysql> select department_name,count(employee_id) as totalemployee from emp_details_view group by department_name order by department_name;
+-----------------+---------------+
| department_name | totalemployee |
+-----------------+---------------+
| Accounting      |             2 |
| Administration  |             1 |
| Executive       |             3 |
| Finance         |             6 |
| Human Resources |             1 |
| IT              |             5 |
| Marketing       |             2 |
| Public Relations|             1 |
| Purchasing      |             6 |
| Sales           |            34 |
| Shipping        |            45 |
+-----------------+---------------+
11 rows in set (0.00 sec)
```

How many employees work under each job title?

```
mysql> select job_title,count(employee_id) as totalemployee from emp_details_view group by job_title order by job_title;
+--------------------------------+---------------+
| job_title                      | totalemployee |
+--------------------------------+---------------+
| Accountant                     |             5 |
| Accounting Manager             |             1 |
| Administration Assistant       |             1 |
| Administration Vice President  |             2 |
| Finance Manager                |             1 |
| Human Resources Representative |             1 |
| Marketing Manager              |             1 |
| Marketing Representative       |             1 |
| President                      |             1 |
| Programmer                     |             5 |
| Public Accountant              |             1 |
| Public Relations Representative|             1 |
| Purchasing Clerk               |             5 |
| Purchasing Manager             |             1 |
| Sales Manager                  |             5 |
| Sales Representative           |            29 |
| Shipping Clerk                 |            20 |
| Stock Clerk                    |            20 |
| Stock Manager                  |             5 |
+--------------------------------+---------------+
19 rows in set (0.00 sec)
```

Display employee's names along with their job title.

```
mysql> select first_name,last_name,job_title from emp_details_view;
+------------+------------+----------------------------------+
| first_name | last_name  | job_title                        |
+------------+------------+----------------------------------+
| Alexander  | Hunold     | Programmer                       |
| Bruce      | Ernst      | Programmer                       |
| David      | Austin     | Programmer                       |
| Valli      | Pataballa  | Programmer                       |
| Diana      | Lorentz    | Programmer                       |
| Matthew    | Weiss      | Stock Manager                    |
| Adam       | Fripp      | Stock Manager                    |
| Payam      | Kaufling   | Stock Manager                    |
| Shanta     | Vollman    | Stock Manager                    |
| Kevin      | Mourgos    | Stock Manager                    |
| Julia      | Nayer      | Stock Clerk                      |
| Irene      | Mikkilineni| Stock Clerk                      |
| James      | Landry     | Stock Clerk                      |
| Steven     | Markle     | Stock Clerk                      |
| Laura      | Bissot     | Stock Clerk                      |
| Mozhe      | Atkinson   | Stock Clerk                      |
| James      | Marlow     | Stock Clerk                      |
| TJ         | Olson      | Stock Clerk                      |
| Jason      | Mallin     | Stock Clerk                      |
| Michael    | Rogers     | Stock Clerk                      |
| Ki         | Gee        | Stock Clerk                      |
| Hazel      | Philtanker | Stock Clerk                      |
| Renske     | Ladwig     | Stock Clerk                      |
| Stephen    | Stiles     | Stock Clerk                      |
| John       | Seo        | Stock Clerk                      |
| Joshua     | Patel      | Stock Clerk                      |
| Trenna     | Rajs       | Stock Clerk                      |
| Curtis     | Davies     | Stock Clerk                      |
| Randall    | Matos      | Stock Clerk                      |
| Peter      | Vargas     | Stock Clerk                      |
```

How many departments are in every country?

```
mysql> select country_name,count(department_id) as totaldepartments from emp_details_view group by country_name order by country_name;
+--------------------------+------------------+
| country_name             | totaldepartments |
+--------------------------+------------------+
| Canada                   |                2 |
| Germany                  |                1 |
| United Kingdom           |               35 |
| United States of America |               68 |
+--------------------------+------------------+
4 rows in set (0.00 sec)
```

Display the name of the employee along with the manager's name.

```
mysql> select E.first_name EmpName,M.first_name MngrName from employees M join employees E on M.employee_id=E.manager_id order by M.first_name;
+-----------+-----------+
| EmpName   | MngrName  |
+-----------+-----------+
| Alexis    | Adam      |
| Laura     | Adam      |
| Nandita   | Adam      |
| Anthony   | Adam      |
| Julia     | Adam      |
| TJ        | Adam      |
| James     | Adam      |
| Mozhe     | Adam      |
| Mattea    | Alberto   |
| Sundar    | Alberto   |
| Amit      | Alberto   |
| Danielle  | Alberto   |
| David     | Alberto   |
| Clara     | Alberto   |
| Bruce     | Alexander |
| David     | Alexander |
| Valli     | Alexander |
| Diana     | Alexander |
| Alexander | Den       |
| Shelli    | Den       |
| Sigal     | Den       |
| Guy       | Den       |
| Karen     | Den       |
```

Display name of employees along with their total experience.

```
mysql> select first_name,last_name, YEAR(NOW())- YEAR(hire_date) as Experience_in_years from employees;
+-------------+-------------+---------------------+
| first_name  | last_name   | Experience_in_years |
+-------------+-------------+---------------------+
| Steven      | King        |                  34 |
| Neena       | Kochhar     |                  32 |
| Lex         | De Haan     |                  28 |
| Alexander   | Hunold      |                  31 |
| Bruce       | Ernst       |                  30 |
| David       | Austin      |                  24 |
| Valli       | Pataballa   |                  23 |
| Diana       | Lorentz     |                  22 |
| Nancy       | Greenberg   |                  27 |
| Daniel      | Faviet      |                  27 |
| John        | Chen        |                  24 |
| Ismael      | Sciarra     |                  24 |
| Jose Manuel | Urman       |                  23 |
```

Display previous job title, latest job title, and name of employees

```
10 rows in set (0.00 sec)

mysql> create view current_job as select e.first_name,e.last_name,j.job_title as current_job from employees e join jobs j on j.job_id=e.job_id order by e.first_name;
Query OK, 0 rows affected (0.03 sec)

mysql> create view past_job as select e.first_name,e.last_name,j.job_title as past_job from employees e join job_history h on e.employee_id=h.employee_id join jobs j on j.job_id=h.job_id order by e.first_name;
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> select c.first_name,c.last_name,c.current_job,p.past_job from past_job p join current_job c where p.first_name=c.first_name AND p.last_name=c.last_name;
+------------+-----------+-------------------------------+--------------------------+
| first_name | last_name | current_job                   | past_job                 |
+------------+-----------+-------------------------------+--------------------------+
| Neena      | Kochhar   | Administration Vice President | Public Accountant        |
| Jennifer   | Whalen    | Administration Assistant      | Public Accountant        |
| Neena      | Kochhar   | Administration Vice President | Accounting Manager       |
| Jennifer   | Whalen    | Administration Assistant      | Administration Assistant |
| Lex        | De Haan   | Administration Vice President | Programmer               |
| Michael    | Hartstein | Marketing Manager             | Marketing Representative |
| Jonathon   | Taylor    | Sales Representative          | Sales Manager            |
| Jonathon   | Taylor    | Sales Representative          | Sales Representative     |
| Den        | Raphaely  | Purchasing Manager            | Stock Clerk              |
| Payam      | Kaufling  | Stock Manager                 | Stock Clerk              |
+------------+-----------+-------------------------------+--------------------------+
10 rows in set (0.00 sec)
```

Display employee's name, last job title of employees who are working in department 60.

```
mysql> select e.first_name,e.last_name, j.job_title as 'Previous job title' from employees e join job_history jh on e.employee_id = jh.employee_id join jobs j on j.job_id = jh.job_id where e.department_id =60;
Empty set (0.00 sec)

mysql>
```

Name the employees who earn the highest salary according to the job.

```
mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Accountant"AND salary=(select max(salary) from emp_details_view where job_title="Accountant");
+------------+-----------+---------+------------+
| first_name | last_name | salary  | job_title  |
+------------+-----------+---------+------------+
| Daniel     | Faviet    | 9000.00 | Accountant |
+------------+-----------+---------+------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Accounting Manager"AND salary=(select max(salary) from emp_details_view where job_title="Accounting Manager");
+------------+-----------+----------+--------------------+
| first_name | last_name | salary   | job_title          |
+------------+-----------+----------+--------------------+
| Shelley    | Higgins   | 12000.00 | Accounting Manager |
+------------+-----------+----------+--------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Administration Assistant"AND salary=(select max(salary) from emp_details_view where job_title="Administration Assistant");
+------------+-----------+---------+--------------------------+
| first_name | last_name | salary  | job_title                |
+------------+-----------+---------+--------------------------+
| Jennifer   | Whalen    | 4400.00 | Administration Assistant |
+------------+-----------+---------+--------------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Administration Vice President"AND salary=(select max(salary) from emp_details_view where job_title="Administration Vice President");
+------------+-----------+----------+-------------------------------+
| first_name | last_name | salary   | job_title                     |
+------------+-----------+----------+-------------------------------+
| Neena      | Kochhar   | 17000.00 | Administration Vice President |
| Lex        | De Haan   | 17000.00 | Administration Vice President |
+------------+-----------+----------+-------------------------------+
2 rows in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Finance Manager"AND salary=(select max(salary) from emp_details_view where job_title="Finance Manager");
+------------+-----------+----------+-----------------+
| first_name | last_name | salary   | job_title       |
+------------+-----------+----------+-----------------+
| Nancy      | Greenberg | 12000.00 | Finance Manager |
+------------+-----------+----------+-----------------+
1 row in set (0.00 sec)
```

```
mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Human Resources Representative"AND salary=(select max(salary) from emp_details_view where job_title="Human Resources Rep
resentative");
+------------+-----------+---------+--------------------------------+
| first_name | last_name | salary  | job_title                      |
+------------+-----------+---------+--------------------------------+
| Susan      | Mavris    | 6500.00 | Human Resources Representative |
+------------+-----------+---------+--------------------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Marketing Manager"AND salary=(select max(salary) from emp_details_view where job_title="Marketing Manager");
+------------+-----------+----------+-------------------+
| first_name | last_name | salary   | job_title         |
+------------+-----------+----------+-------------------+
| Michael    | Hartstein | 13000.00 | Marketing Manager |
+------------+-----------+----------+-------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Marketing Representative"AND salary=(select max(salary) from emp_details_view where job_title="Marketing Representative"
);
+------------+-----------+---------+--------------------------+
| first_name | last_name | salary  | job_title                |
+------------+-----------+---------+--------------------------+
| Pat        | Fay       | 6000.00 | Marketing Representative |
+------------+-----------+---------+--------------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="President"AND salary=(select max(salary) from emp_details_view where job_title="President");
+------------+-----------+----------+-----------+
| first_name | last_name | salary   | job_title |
+------------+-----------+----------+-----------+
| Steven     | King      | 24000.00 | President |
+------------+-----------+----------+-----------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Programmer"AND salary=(select max(salary) from emp_details_view where job_title="Programmer");
+------------+-----------+---------+------------+
| first_name | last_name | salary  | job_title  |
+------------+-----------+---------+------------+
| Alexander  | Hunold    | 9000.00 | Programmer |
+------------+-----------+---------+------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Public Accountant"AND salary=(select max(salary) from emp_details_view where job_title="Public Accountant");
+------------+-----------+---------+-------------------+
| first_name | last_name | salary  | job_title         |
+------------+-----------+---------+-------------------+
| William    | Gietz     | 8300.00 | Public Accountant |
+------------+-----------+---------+-------------------+

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Public Relations Representative"AND salary=(select max(salary) from emp_details_view where job_title="Public Relations R
epresentative");
+------------+-----------+----------+---------------------------------+
| first_name | last_name | salary   | job_title                       |
+------------+-----------+----------+---------------------------------+
| Hermann    | Baer      | 10000.00 | Public Relations Representative |
+------------+-----------+----------+---------------------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Purchasing Clerk"AND salary=(select max(salary) from emp_details_view where job_title="Purchasing Clerk");
+------------+-----------+---------+-----------------+
| first_name | last_name | salary  | job_title       |
+------------+-----------+---------+-----------------+
| Alexander  | Khoo      | 3100.00 | Purchasing Clerk |
+------------+-----------+---------+-----------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Purchasing Manager"AND salary=(select max(salary) from emp_details_view where job_title="Purchasing Manager");
+------------+-----------+----------+--------------------+
| first_name | last_name | salary   | job_title          |
+------------+-----------+----------+--------------------+
| Den        | Raphaely  | 11000.00 | Purchasing Manager |
+------------+-----------+----------+--------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Sales Manager"AND salary=(select max(salary) from emp_details_view where job_title="Sales Manager");
+------------+-----------+----------+---------------+
| first_name | last_name | salary   | job_title     |
+------------+-----------+----------+---------------+
| John       | Russell   | 14000.00 | Sales Manager |
+------------+-----------+----------+---------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Sales Representative"AND salary=(select max(salary) from emp_details_view where job_title="Sales Representative");
+------------+-----------+----------+----------------------+
| first_name | last_name | salary   | job_title            |
+------------+-----------+----------+----------------------+
| Lisa       | Ozer      | 11500.00 | Sales Representative |
+------------+-----------+----------+----------------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Shipping Clerk"AND salary=(select max(salary) from emp_details_view where job_title="Shipping Clerk");
+------------+-----------+---------+----------------+
| first_name | last_name | salary  | job_title      |
+------------+-----------+---------+----------------+
| Nandita    | Sarchand  | 4200.00 | Shipping Clerk |
+------------+-----------+---------+----------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Stock Clerk"AND salary=(select max(salary) from emp_details_view where job_title="Stock Clerk");
+------------+-----------+---------+-------------+
| first_name | last_name | salary  | job_title   |
+------------+-----------+---------+-------------+
| Renske     | Ladwig    | 3600.00 | Stock Clerk |
+------------+-----------+---------+-------------+
1 row in set (0.00 sec)

mysql> select first_name,last_name,salary,job_title from emp_details_view where job_title="Stock Manager"AND salary=(select max(salary) from emp_details_view where job_title="Stock Manager");
+------------+-----------+---------+---------------+
| first_name | last_name | salary  | job_title     |
+------------+-----------+---------+---------------+
| Adam       | Fripp     | 8200.00 | Stock Manager |
+------------+-----------+---------+---------------+
1 row in set (0.00 sec)
```