|  |  |
| --- | --- |
| Q |  |
|  | select \* from jobs where min\_salary>1000; |
|  | +------------+---------------------------------+------------+------------+ |
|  | | job\_id | job\_title | min\_salary | max\_salary | |
|  | +------------+---------------------------------+------------+------------+ |
|  | | AC\_ACCOUNT | Public Accountant | 4200 | 9000 | |
|  | | AC\_MGR | Accounting Manager | 8200 | 16000 | |
|  | | AD\_ASST | Administration Assistant | 3000 | 6000 | |
|  | | AD\_PRES | President | 20000 | 40000 | |
|  | | AD\_VP | Administration Vice President | 15000 | 30000 | |
|  | | FI\_ACCOUNT | Accountant | 4200 | 9000 | |
|  | | FI\_MGR | Finance Manager | 8200 | 16000 | |
|  | | HR\_REP | Human Resources Representative | 4000 | 9000 | |
|  | | IT\_PROG | Programmer | 4000 | 10000 | |
|  | | MK\_MAN | Marketing Manager | 9000 | 15000 | |
|  | | MK\_REP | Marketing Representative | 4000 | 9000 | |
|  | | PR\_REP | Public Relations Representative | 4500 | 10500 | |
|  | | PU\_CLERK | Purchasing Clerk | 2500 | 5500 | |
|  | | PU\_MAN | Purchasing Manager | 8000 | 15000 | |
|  | | SA\_MAN | Sales Manager | 10000 | 20000 | |
|  | | SA\_REP | Sales Representative | 6000 | 12000 | |
|  | | SH\_CLERK | Shipping Clerk | 2500 | 5500 | |
|  | | ST\_CLERK | Stock Clerk | 2000 | 5000 | |
|  | | ST\_MAN | Stock Manager | 5500 | 8500 | |
|  | +------------+---------------------------------+------------+------------+ |
|  | 19 rows in set (0.00 sec) |
|  | 2) Display the first name and join date of the employees who joined between 2002 and 2005. |
|  |  |
|  | select job\_title,department\_name,last\_name,start\_date from job\_history join jobs using (job\_id)join departments using (department\_id) join employees using (employee\_id) where start\_date between 2000 and 2005; |
|  | Empty set, 2 warnings (0.00 sec) |
|  |  |
|  | 3) Display first name and join date of the employees who is either IT Programmer or Sales Man. |
|  |  |
|  |  |
|  | 3.mysql> SELECT FIRST\_NAME,HIRE\_DATE FROM EMPLOYEES WHERE JOB\_ID IN('IT\_PROG','SA\_MAN'); |
|  | +------------+------------+ |
|  | | FIRST\_NAME | HIRE\_DATE | |
|  | +------------+------------+ |
|  | | Alexander | 1990-01-03 | |
|  | | Bruce | 1991-05-21 | |
|  | | David | 1997-06-25 | |
|  | | Valli | 1998-02-05 | |
|  | | Diana | 1999-02-07 | |
|  | | John | 1996-10-01 | |
|  | | Karen | 1997-01-05 | |
|  | | Alberto | 1997-03-10 | |
|  | | Gerald | 1999-10-15 | |
|  | | Eleni | 2000-01-29 | |
|  | +------------+------------+ |
|  | 10 rows in set (0.00 sec) |
|  |  |
|  | 4) Display first name, salary, commission pct, and hire date for employees with salary less than 10000. |
|  |  |
|  | 4.mysql> SELECT FIRST\_NAME,SALARY,COMMISSION\_PCT,HIRE\_DATE FROM EMPLOYEES WHERE SALARY<10000; |
|  | +-------------+--------+----------------+------------+ |
|  | | FIRST\_NAME | SALARY | COMMISSION\_PCT | HIRE\_DATE | |
|  | +-------------+--------+----------------+------------+ |
|  | | Alexander | 9000 | NULL | 1990-01-03 | |
|  | | Bruce | 6000 | NULL | 1991-05-21 | |
|  | | David | 4800 | NULL | 1997-06-25 | |
|  | | Valli | 4800 | NULL | 1998-02-05 | |
|  | | Diana | 4200 | NULL | 1999-02-07 | |
|  | | Daniel | 9000 | NULL | 1994-07-16 | |
|  | | John | 8200 | NULL | 1997-09-28 | |
|  | | Ismael | 7700 | NULL | 1997-08-30 | |
|  | | Jose Manuel | 7800 | NULL | 1998-03-07 | |
|  | | Luis | 6900 | NULL | 1999-12-07 | |
|  | | Alexander | 3100 | NULL | 1995-05-18 | |
|  | | Shelli | 2900 | NULL | 1997-12-24 | |
|  | | Sigal | 2800 | NULL | 1997-07-24 | |
|  | | Guy | 2600 | NULL | 1998-11-15 | |
|  | | Karen | 2500 | NULL | 1999-08-10 | |
|  | | Matthew | 8000 | NULL | 1996-07-18 | |
|  | | Adam | 8200 | NULL | 1997-04-10 | |
|  | | Payam | 7900 | NULL | 1995-05-01 | |
|  | | Shanta | 6500 | NULL | 1997-10-10 | |
|  | | Kevin | 5800 | NULL | 1999-11-16 | |
|  | | Julia | 3200 | NULL | 1997-07-16 | |
|  | | Irene | 2700 | NULL | 1998-09-28 | |
|  | | James | 2400 | NULL | 1999-01-14 | |
|  | | Steven | 2200 | NULL | 2000-03-08 | |
|  | | Laura | 3300 | NULL | 1997-08-20 | |
|  | | Mozhe | 2800 | NULL | 1997-10-30 | |
|  | | James | 2500 | NULL | 1997-02-16 | |
|  | | TJ | 2100 | NULL | 1999-04-10 | |
|  | | Jason | 3300 | NULL | 1996-06-14 | |
|  | | Michael | 2900 | NULL | 1998-08-26 | |
|  | | Ki | 2400 | NULL | 1999-12-12 | |
|  | | Hazel | 2200 | NULL | 2000-02-06 | |
|  | | Renske | 3600 | NULL | 1995-07-14 | |
|  | | Stephen | 3200 | NULL | 1997-10-26 | |
|  | | John | 2700 | NULL | 1998-02-12 | |
|  | | Joshua | 2500 | NULL | 1998-04-06 | |
|  | | Trenna | 3500 | NULL | 1995-10-17 | |
|  | | Curtis | 3100 | NULL | 1997-01-29 | |
|  | | Randall | 2600 | NULL | 1998-03-15 | |
|  | | Peter | 2500 | NULL | 1998-07-09 | |
|  | | David | 9500 | 0.25 | 1997-03-24 | |
|  | | Peter | 9000 | 0.25 | 1997-08-20 | |
|  | | Christopher | 8000 | 0.2 | 1998-03-30 | |
|  | | Nanette | 7500 | 0.2 | 1998-12-09 | |
|  | | Oliver | 7000 | 0.15 | 1999-11-23 | |
|  | | Patrick | 9500 | 0.35 | 1996-03-04 | |
|  | | Allan | 9000 | 0.35 | 1996-07-01 | |
|  | | Lindsey | 8000 | 0.3 | 1997-03-10 | |
|  | | Louise | 7500 | 0.3 | 1997-12-15 | |
|  | | Sarath | 7000 | 0.25 | 1998-11-03 | |
|  | | Danielle | 9500 | 0.15 | 1999-03-19 | |
|  | | Mattea | 7200 | 0.1 | 2000-01-24 | |
|  | | David | 6800 | 0.1 | 2000-02-23 | |
|  | | Sundar | 6400 | 0.1 | 2000-03-24 | |
|  | | Amit | 6200 | 0.1 | 2000-04-21 | |
|  | | Tayler | 9600 | 0.2 | 1998-01-24 | |
|  | | William | 7400 | 0.15 | 1999-02-23 | |
|  | | Elizabeth | 7300 | 0.15 | 1999-03-24 | |
|  | | Sundita | 6100 | 0.1 | 2000-04-21 | |
|  | | Alyssa | 8800 | 0.25 | 1997-03-19 | |
|  | | Jonathon | 8600 | 0.2 | 1998-03-24 | |
|  | | Jack | 8400 | 0.2 | 1998-04-23 | |
|  | | Kimberely | 7000 | 0.15 | 1999-05-24 | |
|  | | Charles | 6200 | 0.1 | 2000-01-04 | |
|  | | Winston | 3200 | NULL | 1998-01-24 | |
|  | | Jean | 3100 | NULL | 1998-02-23 | |
|  | | Martha | 2500 | NULL | 1999-06-21 | |
|  | | Girard | 2800 | NULL | 2000-02-03 | |
|  | | Nandita | 4200 | NULL | 1996-01-27 | |
|  | | Alexis | 4100 | NULL | 1997-02-20 | |
|  | | Julia | 3400 | NULL | 1998-06-24 | |
|  | | Anthony | 3000 | NULL | 1999-02-07 | |
|  | | Kelly | 3800 | NULL | 1997-06-14 | |
|  | | Jennifer | 3600 | NULL | 1997-07-13 | |
|  | | Timothy | 2900 | NULL | 1998-07-11 | |
|  | | Randall | 2500 | NULL | 1999-12-19 | |
|  | | Sarah | 4000 | NULL | 1996-02-04 | |
|  | | Britney | 3900 | NULL | 1997-03-03 | |
|  | | Samuel | 3200 | NULL | 1998-06-01 | |
|  | | Vance | 2800 | NULL | 1999-03-17 | |
|  | | Alana | 3100 | NULL | 1998-04-24 | |
|  | | Kevin | 3000 | NULL | 1998-05-23 | |
|  | | Donald | 2600 | NULL | 1999-06-21 | |
|  | | Douglas | 2600 | NULL | 2000-01-13 | |
|  | | Jennifer | 4400 | NULL | 1987-09-17 | |
|  | | Pat | 6000 | NULL | 1997-07-17 | |
|  | | Susan | 6500 | NULL | 1994-06-07 | |
|  | | William | 8300 | NULL | 1994-06-07 | |
|  | +-------------+--------+----------------+------------+ |
|  | 88 rows in set (0.00 sec) |
|  |  |
|  | 5 Display job Title, the difference between minimum and maximum salaries for jobs with max salary in the range 10000 to 20000. |
|  |  |
|  | 5.mysql> SELECT JOB\_TITLE,MAX\_SALARY-MIN\_SALARY DIFFERENCE FROM JOBS WHERE MAX\_SALARY BETWEEN 10000 AND 20000; |
|  | +---------------------------------+------------+ |
|  | | JOB\_TITLE | DIFFERENCE | |
|  | +---------------------------------+------------+ |
|  | | Accounting Manager | 7800 | |
|  | | Finance Manager | 7800 | |
|  | | Programmer | 6000 | |
|  | | Marketing Manager | 6000 | |
|  | | Public Relations Representative | 6000 | |
|  | | Purchasing Manager | 7000 | |
|  | | Sales Manager | 10000 | |
|  | | Sales Representative | 6000 | |
|  | +---------------------------------+------------+ |
|  | 8 rows in set (0.00 sec) |
|  |  |
|  | 6) Display employees where the first name or last name starts with S. |
|  |  |
|  | 6.mysql> SELECT FIRST\_NAME,LAST\_NAME FROM EMPLOYEES WHERE FIRST\_NAME LIKE 'S%' OR LAST\_NAME LIKE 'S%'; |
|  | +------------+-----------+ |
|  | | FIRST\_NAME | LAST\_NAME | |
|  | +------------+-----------+ |
|  | | Steven | King | |
|  | | Ismael | Sciarra | |
|  | | Shelli | Baida | |
|  | | Sigal | Tobias | |
|  | | Shanta | Vollman | |
|  | | Steven | Markle | |
|  | | Stephen | Stiles | |
|  | | John | Seo | |
|  | | Patrick | Sully | |
|  | | Lindsey | Smith | |
|  | | Sarath | Sewall | |
|  | | Sundar | Ande | |
|  | | William | Smith | |
|  | | Sundita | Kumar | |
|  | | Martha | Sullivan | |
|  | | Nandita | Sarchand | |
|  | | Sarah | Bell | |
|  | | Samuel | McCain | |
|  | | Susan | Mavris | |
|  | | Shelley | Higgins | |
|  | +------------+-----------+ |
|  | 20 rows in set (0.00 sec) |
|  |  |
|  | 7) Display details of jobs in the descending order of the title. |
|  |  |
|  | mysql> SELECT \* FROM JOBS ORDER BY JOB\_TITLE DESC; |
|  | +------------+---------------------------------+------------+------------+ |
|  | | job\_id | job\_title | min\_salary | max\_salary | |
|  | +------------+---------------------------------+------------+------------+ |
|  | | ST\_MAN | Stock Manager | 5500 | 8500 | |
|  | | ST\_CLERK | Stock Clerk | 2000 | 5000 | |
|  | | SH\_CLERK | Shipping Clerk | 2500 | 5500 | |
|  | | SA\_REP | Sales Representative | 6000 | 12000 | |
|  | | SA\_MAN | Sales Manager | 10000 | 20000 | |
|  | | PU\_MAN | Purchasing Manager | 8000 | 15000 | |
|  | | PU\_CLERK | Purchasing Clerk | 2500 | 5500 | |
|  | | PR\_REP | Public Relations Representative | 4500 | 10500 | |
|  | | AC\_ACCOUNT | Public Accountant | 4200 | 9000 | |
|  | | IT\_PROG | Programmer | 4000 | 10000 | |
|  | | AD\_PRES | President | 20000 | 40000 | |
|  | | MK\_REP | Marketing Representative | 4000 | 9000 | |
|  | | MK\_MAN | Marketing Manager | 9000 | 15000 | |
|  | | HR\_REP | Human Resources Representative | 4000 | 9000 | |
|  | | FI\_MGR | Finance Manager | 8200 | 16000 | |
|  | | AD\_VP | Administration Vice President | 15000 | 30000 | |
|  | | AD\_ASST | Administration Assistant | 3000 | 6000 | |
|  | | AC\_MGR | Accounting Manager | 8200 | 16000 | |
|  | | FI\_ACCOUNT | Accountant | 4200 | 9000 | |
|  | +------------+---------------------------------+------------+------------+ |
|  | 19 rows in set (0.00 sec) |
|  | 8.) Display employees who joined in the month of May. |
|  | mysql> select first\_name,hire\_date from employees where hire\_date like '%05%'; |
|  | +------------+------------+ |
|  | | first\_name | hire\_date | |
|  | +------------+------------+ |
|  | | Bruce | 1991-05-21 | |
|  | Alexander | 1995-05-18 | |
|  | | Payam | 1995-05-01 | |
|  | | Ellen | 1996-05-11 | |
|  | | Kimberely | 1999-05-24 | |
|  | | Kevin | 1998-05-23 | |
|  | +------------+------------+ |
|  | 8 rows in set (0.00 sec) |
|  | 9) Display details of the employees where commission percentage is null and salary in the range 5000 to 10000 and department is 30. |
|  | mysql> SELECT \* FROM EMPLOYEES WHERE COMMISSION\_PCT IS NULL AND SALARY BETWEEN 5000 AND 10000 AND DEPARTMENT\_ID=30; |
|  | +-------------+------------+-----------+-------+--------------+------------+----------+--------+----------------+------------+---------------+ |
|  | | employee\_id | first\_name | last\_name | email | phone\_int | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id | |
|  | +-------------+------------+-----------+-------+--------------+------------+----------+--------+----------------+------------+---------------+ |
|  | | 115 | Alexander | Khoo | AKHOO | 515.127.4562 | 1995-05-18 | PU\_CLERK | 8000 | NULL | 114 | 30 | |
|  | +-------------+------------+-----------+-------+--------------+------------+----------+--------+----------------+------------+---------------+ |
|  | 1 row in set (0.04 sec) |
|  |  |
|  | JOINS |
|  |  |
|  | 1). Display job title, employee ID, number of days between ending date and starting date for all jobs in department 30 from job history. |
|  |  |
|  | mysql> select employee\_id,job\_title,end\_date-start\_date days from job\_history natural join jobs where department\_id=30; |
|  | Empty set (0.04 sec) |
|  |  |
|  | 2) Display department name and manager first name. |
|  |  |
|  | mysql> select department\_name,first\_name from departments d join employees e on(d.manager\_id=e.employee\_id); |
|  | +------------------+------------+ |
|  | | department\_name | first\_name | |
|  | +------------------+------------+ |
|  | | Administration | Jennifer | |
|  | | Marketing | Michael | |
|  | | Purchasing | Den | |
|  | | Human Resources | Susan | |
|  | | Shipping | Adam | |
|  | | IT | Alexander | |
|  | | Public Relations | Hermann | |
|  | | Sales | John | |
|  | | Executive | Steven | |
|  | | Finance | Nancy | |
|  | | Accounting | Shelley | |
|  | +------------------+------------+ |
|  | 11 rows in set (0.00 sec) |
|  | 3) Display department name, manager name, and city. |
|  |  |
|  | mysql> SELECT DEPARTMENT\_NAME, FIRST\_NAME, CITY FROM DEPARTMENTS D JOIN EMPLOYEES E ON (D.MANAGER\_ID=E.EMPLOYEE\_ID) JOIN LOCATIONS L USING (LOCATION\_ID); |
|  | +------------------+------------+---------------------+ |
|  | | DEPARTMENT\_NAME | FIRST\_NAME | CITY | |
|  | +------------------+------------+---------------------+ |
|  | | Administration | Jennifer | Seattle | |
|  | | Marketing | Michael | Toronto | |
|  | | Purchasing | Den | Seattle | |
|  | | Human Resources | Susan | London | |
|  | | Shipping | Adam | South San Francisco | |
|  | | IT | Alexander | Southlake | |
|  | | Public Relations | Hermann | Munich | |
|  | | Sales | John | Oxford | |
|  | | Executive | Steven | Seattle | |
|  | | Finance | Nancy | Seattle | |
|  | | Accounting | Shelley | Seattle | |
|  | +------------------+------------+---------------------+ |
|  | 11 rows in set (0.00 sec) |
|  |  |
|  | 4) Display country name, city, and department name. |
|  | mysql> select country\_name,city,department\_name from countries join locations using(country\_id)join departments using(location\_id); |
|  | +--------------------------+---------------------+----------------------+ |
|  | | country\_name | city | department\_name | |
|  | +--------------------------+---------------------+----------------------+ |
|  | | United States of America | Seattle | Administration | |
|  | | Canada | Toronto | Marketing | |
|  | | United States of America | Seattle | Purchasing | |
|  | | United Kingdom | London | Human Resources | |
|  | | United States of America | South San Francisco | Shipping | |
|  | | United States of America | Southlake | IT | |
|  | | Germany | Munich | Public Relations | |
|  | | United Kingdom | Oxford | Sales | |
|  | | United States of America | Seattle | Executive | |
|  | | United States of America | Seattle | Finance | |
|  | | United States of America | Seattle | Accounting | |
|  | | United States of America | Seattle | Treasury | |
|  | | United States of America | Seattle | Corporate Tax | |
|  | | United States of America | Seattle | Control And Credit | |
|  | | United States of America | Seattle | Shareholder Services | |
|  | | United States of America | Seattle | Benefits | |
|  | | United States of America | Seattle | Manufacturing | |
|  | | United States of America | Seattle | Construction | |
|  | | United States of America | Seattle | Contracting | |
|  | | United States of America | Seattle | Operations | |
|  | | United States of America | Seattle | IT Support | |
|  | | United States of America | Seattle | NOC | |
|  | | United States of America | Seattle | IT Helpdesk | |
|  | | United States of America | Seattle | Government Sales | |
|  | | United States of America | Seattle | Retail Sales | |
|  | | United States of America | Seattle | Recruiting | |
|  | | United States of America | Seattle | Payroll | |
|  | +--------------------------+---------------------+----------------------+ |
|  | 27 rows in set (0.00 sec) |
|  |  |
|  | 5) Display employee name and country in which he is working. |
|  |  |
|  | mysql> select first\_name,country\_name from employees join departments using (department\_id) join locations using(location\_id)join countries using(country\_id); |
|  | +-------------+--------------------------+ |
|  | | first\_name | country\_name | |
|  | +-------------+--------------------------+ |
|  | | Alexander | United States of America | |
|  | | Bruce | United States of America | |
|  | | David | United States of America | |
|  | | Valli | United States of America | |
|  | | Diana | United States of America | |
|  | | Matthew | United States of America | |
|  | | Adam | United States of America | |
|  | | Payam | United States of America | |
|  | | Shanta | United States of America | |
|  | | Kevin | United States of America | |
|  | | Julia | United States of America | |
|  | | Irene | United States of America | |
|  | | James | United States of America | |
|  | | Steven | United States of America | |
|  | | Laura | United States of America | |
|  | | Mozhe | United States of America | |
|  | | James | United States of America | |
|  | | TJ | United States of America | |
|  | | Jason | United States of America | |
|  | | Michael | United States of America | |
|  | | Ki | United States of America | |
|  | | Hazel | United States of America | |
|  | | Renske | United States of America | |
|  | | Stephen | United States of America | |
|  | | John | United States of America | |
|  | | Joshua | United States of America | |
|  | | Trenna | United States of America | |
|  | | Curtis | United States of America | |
|  | | Randall | United States of America | |
|  | | Peter | United States of America | |
|  | | Winston | United States of America | |
|  | | Jean | United States of America | |
|  | | Martha | United States of America | |
|  | | Girard | United States of America | |
|  | | Nandita | United States of America | |
|  | | Alexis | United States of America | |
|  | | Julia | United States of America | |
|  | | Anthony | United States of America | |
|  | | Kelly | United States of America | |
|  | | Jennifer | United States of America | |
|  | | Timothy | United States of America | |
|  | | Randall | United States of America | |
|  | | Sarah | United States of America | |
|  | | Britney | United States of America | |
|  | | Samuel | United States of America | |
|  | | Vance | United States of America | |
|  | | Alana | United States of America | |
|  | | Kevin | United States of America | |
|  | | Donald | United States of America | |
|  | | Douglas | United States of America | |
|  | | Jennifer | United States of America | |
|  | | Den | United States of America | |
|  | | Alexander | United States of America | |
|  | | Shelli | United States of America | |
|  | | Sigal | United States of America | |
|  | | Guy | United States of America | |
|  | | Karen | United States of America | |
|  | | Steven | United States of America | |
|  | | Neena | United States of America | |
|  | | Lex | United States of America | |
|  | | bhagi | United States of America | |
|  | | Nancy | United States of America | |
|  | | Daniel | United States of America | |
|  | | John | United States of America | |
|  | | Ismael | United States of America | |
|  | | Jose Manuel | United States of America | |
|  | | Luis | United States of America | |
|  | | Shelley | United States of America | |
|  | | William | United States of America | |
|  | | Michael | Canada | |
|  | | Pat | Canada | |
|  | | Susan | United Kingdom | |
|  | | John | United Kingdom | |
|  | | Karen | United Kingdom | |
|  | | Alberto | United Kingdom | |
|  | | Gerald | United Kingdom | |
|  | | Eleni | United Kingdom | |
|  | | Peter | United Kingdom | |
|  | | David | United Kingdom | |
|  | | Peter | United Kingdom | |
|  | | Christopher | United Kingdom | |
|  | | Nanette | United Kingdom | |
|  | | Oliver | United Kingdom | |
|  | | Janette | United Kingdom | |
|  | | Patrick | United Kingdom | |
|  | | Allan | United Kingdom | |
|  | | Lindsey | United Kingdom | |
|  | | Louise | United Kingdom | |
|  | | Sarath | United Kingdom | |
|  | | Clara | United Kingdom | |
|  | | Danielle | United Kingdom | |
|  | | Mattea | United Kingdom | |
|  | | David | United Kingdom | |
|  | | Sundar | United Kingdom | |
|  | | Amit | United Kingdom | |
|  | | Lisa | United Kingdom | |
|  | | Harrison | United Kingdom | |
|  | | Tayler | United Kingdom | |
|  | | William | United Kingdom | |
|  | | Elizabeth | United Kingdom | |
|  | | Sundita | United Kingdom | |
|  | | Ellen | United Kingdom | |
|  | | Alyssa | United Kingdom | |
|  | | Jonathon | United Kingdom | |
|  | | Jack | United Kingdom | |
|  | | Charles | United Kingdom | |
|  | | Hermann | Germany | |
|  | +-------------+--------------------------+ |
|  | 107 rows in set (0.04 sec) |
|  |  |
|  |  |
|  | FUNCTIONS |
|  |  |
|  | 1. Display employees who joined in the month of May. |
|  | mysql> select first\_name,hire\_date from employees where hire\_date like '%05%'; |
|  | +------------+------------+ |
|  | | first\_name | hire\_date | |
|  | +------------+------------+ |
|  | | Bruce | 1991-05-21 | |
|  | Alexander | 1995-05-18 | |
|  | | Payam | 1995-05-01 | |
|  | | Ellen | 1996-05-11 | |
|  | | Kimberely | 1999-05-24 | |
|  | | Kevin | 1998-05-23 | |
|  | +------------+------------+ |
|  | 8 rows in set (0.00 sec) |
|  |  |
|  | 2. Display first name, salary, and round the salary to thousands. |
|  | mysql> SELECT FIRST\_NAME,SALARY,ROUND(SALARY,-3) from employees; |
|  | +-------------+--------+------------------+ |
|  | | FIRST\_NAME | SALARY | ROUND(SALARY,-3) | |
|  | +-------------+--------+------------------+ |
|  | | Steven | 24000 | 24000 | |
|  | | Neena | 17000 | 17000 | |
|  | | Lex | 17000 | 17000 | |
|  | | Alexander | 9000 | 9000 | |
|  | | Bruce | 6000 | 6000 | |
|  | | David | 4800 | 5000 | |
|  | | Valli | 4800 | 5000 | |
|  | | Diana | 4200 | 4000 | |
|  | | Nancy | 12000 | 12000 | |
|  | | Daniel | 9000 | 9000 | |
|  | | John | 8200 | 8000 | |
|  | | Ismael | 7700 | 8000 | |
|  | | Jose Manuel | 7800 | 8000 | |
|  | | Luis | 6900 | 7000 | |
|  | | Den | 11000 | 11000 | |
|  | | Alexander | 8000 | 8000 | |
|  | | Shelli | 2900 | 3000 | |
|  | | Sigal | 2800 | 3000 | |
|  | | Guy | 2600 | 3000 | |
|  | | Karen | 2500 | 2000 | |
|  | | Matthew | 8000 | 8000 | |
|  | | Adam | 8200 | 8000 | |
|  | | Payam | 7900 | 8000 | |
|  | | Shanta | 6500 | 6000 | |
|  | | Kevin | 5800 | 6000 | |
|  | | Julia | 3200 | 3000 | |
|  | | Irene | 2700 | 3000 | |
|  | | James | 2400 | 2000 | |
|  | | Steven | 2200 | 2000 | |
|  | | Laura | 3300 | 3000 | |
|  | | Mozhe | 2800 | 3000 | |
|  | | James | 2500 | 2000 | |
|  | | TJ | 2100 | 2000 | |
|  | | Jason | 3300 | 3000 | |
|  | | Michael | 2900 | 3000 | |
|  | | Ki | 2400 | 2000 | |
|  | | Hazel | 2200 | 2000 | |
|  | | Renske | 3600 | 4000 | |
|  | | Stephen | 3200 | 3000 | |
|  | | John | 2700 | 3000 | |
|  | | Joshua | 2500 | 2000 | |
|  | | Trenna | 3500 | 4000 | |
|  | | Curtis | 3100 | 3000 | |
|  | | Randall | 2600 | 3000 | |
|  | | Peter | 2500 | 2000 | |
|  | | John | 14000 | 14000 | |
|  | | Karen | 13500 | 14000 | |
|  | | Alberto | 12000 | 12000 | |
|  | | Gerald | 11000 | 11000 | |
|  | | Eleni | 10500 | 10000 | |
|  | | Peter | 10000 | 10000 | |
|  | | David | 9500 | 10000 | |
|  | | Peter | 9000 | 9000 | |
|  | | Christopher | 8000 | 8000 | |
|  | | Nanette | 7500 | 8000 | |
|  | | Oliver | 7000 | 7000 | |
|  | | Janette | 10000 | 10000 | |
|  | | Patrick | 9500 | 10000 | |
|  | | Allan | 9000 | 9000 | |
|  | | Lindsey | 8000 | 8000 | |
|  | | Louise | 7500 | 8000 | |
|  | | Sarath | 7000 | 7000 | |
|  | | Clara | 10500 | 10000 | |
|  | | Danielle | 9500 | 10000 | |
|  | | Mattea | 7200 | 7000 | |
|  | | David | 6800 | 7000 | |
|  | | Sundar | 6400 | 6000 | |
|  | | Amit | 6200 | 6000 | |
|  | | Lisa | 11500 | 12000 | |
|  | | Harrison | 10000 | 10000 | |
|  | | Tayler | 9600 | 10000 | |
|  | | William | 7400 | 7000 | |
|  | | Elizabeth | 7300 | 7000 | |
|  | | Sundita | 6100 | 6000 | |
|  | | Ellen | 11000 | 11000 | |
|  | | Alyssa | 8800 | 9000 | |
|  | | Jonathon | 8600 | 9000 | |
|  | | Jack | 8400 | 8000 | |
|  | | Kimberely | 7000 | 7000 | |
|  | | Charles | 6200 | 6000 | |
|  | | Winston | 3200 | 3000 | |
|  | | Jean | 3100 | 3000 | |
|  | | Martha | 2500 | 2000 | |
|  | | Girard | 2800 | 3000 | |
|  | | Nandita | 4200 | 4000 | |
|  | | Alexis | 4100 | 4000 | |
|  | | Julia | 3400 | 3000 | |
|  | | Anthony | 3000 | 3000 | |
|  | | Kelly | 3800 | 4000 | |
|  | | Jennifer | 3600 | 4000 | |
|  | | Timothy | 2900 | 3000 | |
|  | | Randall | 2500 | 2000 | |
|  | | Sarah | 4000 | 4000 | |
|  | | Britney | 3900 | 4000 | |
|  | | Samuel | 3200 | 3000 | |
|  | | Vance | 2800 | 3000 | |
|  | | Alana | 3100 | 3000 | |
|  | | Kevin | 3000 | 3000 | |
|  | | Donald | 2600 | 3000 | |
|  | | Douglas | 2600 | 3000 | |
|  | | Jennifer | 4400 | 4000 | |
|  | | Michael | 13000 | 13000 | |
|  | | Pat | 6000 | 6000 | |
|  | | Susan | 6500 | 6000 | |
|  | | Hermann | 10000 | 10000 | |
|  | | Shelley | 12000 | 12000 | |
|  | | William | 8300 | 8000 | |
|  | | bhagi | 17000 | 17000 | |
|  | +-------------+--------+------------------+ |
|  | 108 rows in set (0.00 sec) |
|  |  |
|  | 3 Display first name and date of first salary of the employees. |
|  |  |
|  | mysql> SELECT FIRST\_NAME, HIRE\_DATE, LAST\_DAY(HIRE\_DATE)+1 FROM EMPLOYEES; |
|  | +-------------+------------+-----------------------+ |
|  | | FIRST\_NAME | HIRE\_DATE | LAST\_DAY(HIRE\_DATE)+1 | |
|  | +-------------+------------+-----------------------+ |
|  | | Steven | 1987-06-27 | 19870631 | |
|  | | Neena | 1989-09-21 | 19890931 | |
|  | | Lex | 1993-01-13 | 19930132 | |
|  | | Alexander | 1990-01-03 | 19900132 | |
|  | | Bruce | 1991-05-21 | 19910532 | |
|  | | David | 1997-06-25 | 19970631 | |
|  | | Valli | 1998-02-05 | 19980229 | |
|  | | Diana | 1999-02-07 | 19990229 | |
|  | | Nancy | 1994-08-17 | 19940832 | |
|  | | Daniel | 1994-07-16 | 19940732 | |
|  | | John | 1997-09-28 | 19970931 | |
|  | | Ismael | 1997-08-30 | 19970832 | |
|  | | Jose Manuel | 1998-03-07 | 19980332 | |
|  | | Luis | 1999-12-07 | 19991232 | |
|  | | Den | 1994-12-07 | 19941232 | |
|  | | Alexander | 1995-05-18 | 19950532 | |
|  | | Shelli | 1997-12-24 | 19971232 | |
|  | | Sigal | 1997-07-24 | 19970732 | |
|  | | Guy | 1998-11-15 | 19981131 | |
|  | | Karen | 1999-08-10 | 19990832 | |
|  | | Matthew | 1996-07-18 | 19960732 | |
|  | | Adam | 1997-04-10 | 19970431 | |
|  | | Payam | 1995-05-01 | 19950532 | |
|  | | Shanta | 1997-10-10 | 19971032 | |
|  | | Kevin | 1999-11-16 | 19991131 | |
|  | | Julia | 1997-07-16 | 19970732 | |
|  | | Irene | 1998-09-28 | 19980931 | |
|  | | James | 1999-01-14 | 19990132 | |
|  | | Steven | 2000-03-08 | 20000332 | |
|  | | Laura | 1997-08-20 | 19970832 | |
|  | | Mozhe | 1997-10-30 | 19971032 | |
|  | | James | 1997-02-16 | 19970229 | |
|  | | TJ | 1999-04-10 | 19990431 | |
|  | | Jason | 1996-06-14 | 19960631 | |
|  | | Michael | 1998-08-26 | 19980832 | |
|  | | Ki | 1999-12-12 | 19991232 | |
|  | | Hazel | 2000-02-06 | 20000230 | |
|  | | Renske | 1995-07-14 | 19950732 | |
|  | | Stephen | 1997-10-26 | 19971032 | |
|  | | John | 1998-02-12 | 19980229 | |
|  | | Joshua | 1998-04-06 | 19980431 | |
|  | | Trenna | 1995-10-17 | 19951032 | |
|  | | Curtis | 1997-01-29 | 19970132 | |
|  | | Randall | 1998-03-15 | 19980332 | |
|  | | Peter | 1998-07-09 | 19980732 | |
|  | | John | 1996-10-01 | 19961032 | |
|  | | Karen | 1997-01-05 | 19970132 | |
|  | | Alberto | 1997-03-10 | 19970332 | |
|  | | Gerald | 1999-10-15 | 19991032 | |
|  | | Eleni | 2000-01-29 | 20000132 | |
|  | | Peter | 1997-01-30 | 19970132 | |
|  | | David | 1997-03-24 | 19970332 | |
|  | | Peter | 1997-08-20 | 19970832 | |
|  | | Christopher | 1998-03-30 | 19980332 | |
|  | | Nanette | 1998-12-09 | 19981232 | |
|  | | Oliver | 1999-11-23 | 19991131 | |
|  | | Janette | 1996-01-30 | 19960132 | |
|  | | Patrick | 1996-03-04 | 19960332 | |
|  | | Allan | 1996-07-01 | 19960732 | |
|  | | Lindsey | 1997-03-10 | 19970332 | |
|  | | Louise | 1997-12-15 | 19971232 | |
|  | | Sarath | 1998-11-03 | 19981131 | |
|  | | Clara | 1997-11-11 | 19971131 | |
|  | | Danielle | 1999-03-19 | 19990332 | |
|  | | Mattea | 2000-01-24 | 20000132 | |
|  | | David | 2000-02-23 | 20000230 | |
|  | | Sundar | 2000-03-24 | 20000332 | |
|  | | Amit | 2000-04-21 | 20000431 | |
|  | | Lisa | 1997-03-11 | 19970332 | |
|  | | Harrison | 1998-03-23 | 19980332 | |
|  | | Tayler | 1998-01-24 | 19980132 | |
|  | | William | 1999-02-23 | 19990229 | |
|  | | Elizabeth | 1999-03-24 | 19990332 | |
|  | | Sundita | 2000-04-21 | 20000431 | |
|  | | Ellen | 1996-05-11 | 19960532 | |
|  | | Alyssa | 1997-03-19 | 19970332 | |
|  | | Jonathon | 1998-03-24 | 19980332 | |
|  | | Jack | 1998-04-23 | 19980431 | |
|  | | Kimberely | 1999-05-24 | 19990532 | |
|  | | Charles | 2000-01-04 | 20000132 | |
|  | | Winston | 1998-01-24 | 19980132 | |
|  | | Jean | 1998-02-23 | 19980229 | |
|  | | Martha | 1999-06-21 | 19990631 | |
|  | | Girard | 2000-02-03 | 20000230 | |
|  | | Nandita | 1996-01-27 | 19960132 | |
|  | | Alexis | 1997-02-20 | 19970229 | |
|  | | Julia | 1998-06-24 | 19980631 | |
|  | | Anthony | 1999-02-07 | 19990229 | |
|  | | Kelly | 1997-06-14 | 19970631 | |
|  | | Jennifer | 1997-07-13 | 19970732 | |
|  | | Timothy | 1998-07-11 | 19980732 | |
|  | | Randall | 1999-12-19 | 19991232 | |
|  | | Sarah | 1996-02-04 | 19960230 | |
|  | | Britney | 1997-03-03 | 19970332 | |
|  | | Samuel | 1998-06-01 | 19980631 | |
|  | | Vance | 1999-03-17 | 19990332 | |
|  | | Alana | 1998-04-24 | 19980431 | |
|  | | Kevin | 1998-05-23 | 19980532 | |
|  | | Donald | 1999-06-21 | 19990631 | |
|  | | Douglas | 2000-01-13 | 20000132 | |
|  | | Jennifer | 1987-09-17 | 19870931 | |
|  | | Michael | 1996-02-17 | 19960230 | |
|  | | Pat | 1997-07-17 | 19970732 | |
|  | | Susan | 1994-06-07 | 19940631 | |
|  | | Hermann | 1994-06-07 | 19940631 | |
|  | | Shelley | 1994-06-07 | 19940631 | |
|  | | William | 1994-06-07 | 19940631 | |
|  | | bhagi | 1989-09-21 | 19890931 | |
|  | +-------------+------------+-----------------------+ |
|  | 108 rows in set (0.00 sec) |
|  |  |
|  | 5. Display the length of first name for employees where last name contain character ‘b’ after 3rd position. |
|  | mysql> SELECT FIRST\_NAME, LAST\_NAME FROM EMPLOYEES WHERE INSTR(LAST\_NAME,'B') > 3; |
|  | +------------+-----------+ |
|  | | FIRST\_NAME | LAST\_NAME | |
|  | +------------+-----------+ |
|  | | Valli | Pataballa | |
|  | | Nancy | Greenberg | |
|  | | Gerald | Cambrault | |
|  | | Nanette | Cambrault | |
|  | +------------+-----------+ |
|  | 4 rows in set (0.04 sec) |
|  |  |
|  | 6. Display first name in upper case and email address in lower case for employees where the first name and email address are same irrespective of the case. |
|  |  |
|  | mysql> SELECT UPPER(FIRST\_NAME), LOWER(EMAIL) FROM EMPLOYEES WHERE UPPER(FIRST\_NAME)= UPPER(EMAIL); |
|  | Empty set (0.00 sec) |
|  |  |
|  | 7.Display employees who joined in the year 2001. |
|  |  |
|  | mysql> SELECT FIRST\_NAME, HIRE\_DATE FROM EMPLOYEES WHERE hire\_date=2001; |
|  | Empty set, 1 warning (0.00 sec) |
|  |  |
|  | 9. Display how many employees joined in each month of the 1995. |
|  | mysql> select hire\_date,count(\*) from employees WHERE hire\_date = ('1995-01-01') GROUP BY HIRE\_DATE; |
|  | Empty set (0.00 sec) |
|  |  |
|  | AGGREGATE FUNCIONS |
|  |  |
|  | 1. Display employee ID and the date on which he ended his previous job. |
|  |  |
|  | mysql> SELECT EMPLOYEE\_ID, MAX(END\_DATE) FROM JOB\_HISTORY GROUP BY EMPLOYEE\_ID; |
|  | +-------------+---------------+ |
|  | | EMPLOYEE\_ID | MAX(END\_DATE) | |
|  | +-------------+---------------+ |
|  | | 101 | 1997-03-15 | |
|  | | 102 | 1998-07-24 | |
|  | | 114 | 1999-12-31 | |
|  | | 122 | 1999-12-31 | |
|  | | 176 | 1999-12-31 | |
|  | | 200 | 1998-12-31 | |
|  | | 201 | 1999-12-19 | |
|  | +-------------+---------------+ |
|  | 7 rows in set (0.00 sec) |
|  |  |
|  | 2.Display number of employees joined after 15th of the month. |
|  |  |
|  | mysql> SELECT COUNT(\*) FROM EMPLOYEES WHERE HIRE\_DATE>15; |
|  | +----------+ |
|  | | COUNT(\*) | |
|  | +----------+ |
|  | | 108 | |
|  | +----------+ |
|  | 1 row in set, 1 warning (0.00 sec) |
|  |  |
|  | 3. Display the country ID and number of cities we have in the country. |
|  |  |
|  | mysql> SELECT COUNTRY\_ID,COUNT(\*) FROM LOCATIONS GROUP BY COUNTRY\_ID; |
|  | +------------+----------+ |
|  | | COUNTRY\_ID | COUNT(\*) | |
|  | +------------+----------+ |
|  | | AU | 1 | |
|  | | BR | 1 | |
|  | | CA | 2 | |
|  | | CH | 2 | |
|  | | CN | 1 | |
|  | | DE | 1 | |
|  | | IN | 1 | |
|  | | IT | 2 | |
|  | | JP | 2 | |
|  | | MX | 1 | |
|  | | NL | 1 | |
|  | | SG | 1 | |
|  | | UK | 3 | |
|  | | US | 4 | |
|  | +------------+----------+ |
|  | 14 rows in set (0.04 sec) |
|  |  |
|  | 4.. Display average salary of employees in each department who have commission percentage. |
|  |  |
|  | 4. SELECT DEPARTMENT\_ID ,AVG(SALARY) FROM EMPLOYEES WHERE COMMISSION\_PCT IS NOT NULL GROUP BY DEPARTMENT\_ID; |
|  | +---------------+-------------------+ |
|  | | DEPARTMENT\_ID | AVG(SALARY) | |
|  | +---------------+-------------------+ |
|  | | NULL | 7000 | |
|  | | 80 | 8955.882352941177 | |
|  | +---------------+-------------------+ |
|  | 2 rows in set (0.00 sec). |
|  |  |
|  | 5. Display job ID, number of employees, sum of salary, and difference between highest salary and lowest salary of the employees of the job. |
|  |  |
|  | > SELECT JOB\_ID,COUNT(\*),SUM(SALARY),MAX(SALARY)-MIN(SALARY) SALARY FROM EMPLOYEES GROUP BY JOB\_ID; |
|  | +------------+----------+-------------+--------+ |
|  | | JOB\_ID | COUNT(\*) | SUM(SALARY) | SALARY | |
|  | +------------+----------+-------------+--------+ |
|  | | AC\_ACCOUNT | 1 | 8300 | 0 | |
|  | | AC\_MGR | 1 | 12000 | 0 | |
|  | | AD\_ASST | 1 | 4400 | 0 | |
|  | | AD\_PRES | 1 | 24000 | 0 | |
|  | | AD\_VP | 2 | 34000 | 0 | |
|  | | FI\_ACCOUNT | 5 | 39600 | 2100 | |
|  | | FI\_MGR | 1 | 12000 | 0 | |
|  | | HR\_REP | 1 | 6500 | 0 | |
|  | | IT\_PROG | 5 | 28800 | 4800 | |
|  | | MK\_MAN | 1 | 13000 | 0 | |
|  | | MK\_REP | 1 | 6000 | 0 | |
|  | | PR\_REP | 1 | 10000 | 0 | |
|  | | PU\_CLERK | 5 | 13900 | 600 | |
|  | | PU\_MAN | 1 | 11000 | 0 | |
|  | | SA\_MAN | 5 | 61000 | 3500 | |
|  | | SA\_REP | 30 | 250500 | 5400 | |
|  | | SH\_CLERK | 20 | 64300 | 1700 | |
|  | | ST\_CLERK | 20 | 55700 | 1500 | |
|  | | ST\_MAN | 5 | 36400 | 2400 | |
|  | +------------+----------+-------------+--------+ |
|  | 19 rows in set (0.00 sec) |
|  |  |
|  | 6. Display job ID for jobs with average salary more than 10000. |
|  |  |
|  | mysql> SELECT JOB\_ID,AVG(SALARY) FROM EMPLOYEES GROUP BY JOB\_ID HAVING AVG(SALARY)>10000; |
|  | +---------+-------------+ |
|  | | JOB\_ID | AVG(SALARY) | |
|  | +---------+-------------+ |
|  | | AC\_MGR | 12000 | |
|  | | AD\_PRES | 24000 | |
|  | | AD\_VP | 17000 | |
|  | | FI\_MGR | 12000 | |
|  | | MK\_MAN | 13000 | |
|  | | PU\_MAN | 11000 | |
|  | | SA\_MAN | 12200 | |
|  | +---------+-------------+ |
|  | 7 rows in set (0.00 sec) |
|  |  |
|  | 7. Display years in which more than 10 employees joined. |
|  |  |
|  | mysql> SELECT HIRE\_DATE from employees group by hire\_date HAVING COUNT(EMPLOYEE\_ID) > 10; |
|  | Empty set (0.00 sec) |
|  |  |
|  | 8.Display departments in which more than five employees have commission percentage. |
|  |  |
|  | mysql> select department\_id from employees where commission\_pct is not null group by job\_id HAVING COUNT(COMMISSION\_PCT)>5; |
|  | +---------------+ |
|  | | department\_id | |
|  | +---------------+ |
|  | | 80 | |
|  | +---------------+ |
|  | 1 row in set (0.05 sec) |
|  |  |
|  | 9.Display department name and number of employees in the department. |
|  |  |
|  | mysql> SELECT DEPARTMENT\_NAME, COUNT(\*) FROM EMPLOYEES NATURAL JOIN DEPARTMENTS GROUP BY DEPARTMENT\_NAME; |
|  | +-----------------+----------+ |
|  | | DEPARTMENT\_NAME | COUNT(\*) | |
|  | +-----------------+----------+ |
|  | | Executive | 3 | |
|  | | IT | 4 | |
|  | | Finance | 5 | |
|  | | Purchasing | 5 | |
|  | | Shipping | 8 | |
|  | | Sales | 6 | |
|  | | Marketing | 1 | |
|  | | Accounting | 1 | |
|  | +-----------------+----------+ |
|  | 8 rows in set (0.00 sec) |
|  |  |
|  | 10. Display employee ID for employees who did more than one job in the past. |
|  |  |
|  |  |
|  | mysql> SELECT EMPLOYEE\_ID FROM JOB\_HISTORY GROUP BY EMPLOYEE\_ID HAVING COUNT(\*) > 1; |
|  | +-------------+ |
|  | | EMPLOYEE\_ID | |
|  | +-------------+ |
|  | | 101 | |
|  | | 176 | |
|  | | 200 | |
|  | +-------------+ |
|  | 3 rows in set (0.00 sec) |