11-1-2021.

SELECT CLAUSE WITH WHERE CALUSE:

1>Display Details Of Jobs Where The Minimum Salary Is Greater Than 10000

select \* from jobs where min\_salary > 10000;

+---------+-------------------------------+------------+------------+

| JOB\_ID | JOB\_TITLE | MIN\_SALARY | MAX\_SALARY |

+---------+-------------------------------+------------+------------+

| AD\_PRES | PRESIDENT | 20000 | 40000 |

| AD\_VP | ADMINISTRATION VICE PRESIDENT | 15000 | 30000 |

+---------+-------------------------------+------------+------------+

2 rows in set (0.01 sec)

2> Display The First Name And Join Date Of The Employees Who Joined Between 2002 And 2005.

select first\_name,hire\_date from employees where (hire\_date,%y%) between and '2002' and '2005' ;

3>Display First Name And Join Date Of The Employee Who Is Either IT Programmer Or Saleman.

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 (0.05 sec)

4> Display first name ,salary ,commission pct and hire date for employees with salary less than 10000.

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 | 8000 | 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 |

| RAM | 9000 | NULL | 1994-01-01 |

+-------------+--------+----------------+------------+

89 ROWS IN SET (0.00 SEC)

5>Display jod title the difference between minimum and maximum salaries for jobs with max salary in the range 10000 to20000

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 start with s.

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 |

| RAM | SITA |

+------------+-----------+

21 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;

+------------+---------------------------------+------------+------------+

| JOB\_ID | JOB\_TITLE | MIN\_SALARY | MAX\_SALARY |

+------------+---------------------------------+------------+------------+

| FI\_ACCOUNT | ACCOUNTANT | 4200 | 9000 |

| AC\_MGR | ACCOUNTING MANAGER | 8200 | 16000 |

| AD\_ASST | ADMINISTRATION ASSISTANT | 3000 | 6000 |

| AD\_VP | ADMINISTRATION VICE PRESIDENT | 15000 | 30000 |

| FI\_MGR | FINANCE MANAGER | 8200 | 16000 |

| HR\_REP | HUMAN RESOURCES REPRESENTATIVE | 4000 | 9000 |

| MK\_MAN | MARKETING MANAGER | 9000 | 15000 |

| MK\_REP | MARKETING REPRESENTATIVE | 4000 | 9000 |

| AD\_PRES | PRESIDENT | 20000 | 40000 |

| IT\_PROG | PROGRAMMER | 4000 | 10000 |

| AC\_ACCOUNT | PUBLIC ACCOUNTANT | 4200 | 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)

8>Display employees who joined in the month of may

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 (0.00 sec)

9>Display details of the employees where commission percentage is null and salary in the range 5000to10000 and department is 30.

select jh.employee\_id,jh.start\_date,jh.end\_date,jh.department\_id,j.job\_title from job\_history jh,jobs j where jh.job\_id=j.job\_id;

+-------------+------------+------------+---------------+--------------------------+

| employee\_id | start\_date | end\_date | department\_id | job\_title |

+-------------+------------+------------+---------------+--------------------------+

| 101 | 1989-09-21 | 1993-10-27 | 110 | public accountant |

| 200 | 1994-07-01 | 1998-12-31 | 90 | public accountant |

| 101 | 1993-10-28 | 1997-03-15 | 110 | accounting manager |

| 200 | 1987-09-17 | 1993-06-17 | 90 | administration assistant |

| 102 | 1993-01-13 | 1998-07-24 | 60 | programmer |

| 201 | 1996-02-17 | 1999-12-19 | 20 | marketing representative |

| 176 | 1999-01-01 | 1999-12-31 | 80 | sales manager |

| 176 | 1998-03-24 | 1998-12-31 | 80 | sales representative |

| 114 | 1998-03-24 | 1999-12-31 | 50 | stock clerk |

| 122 | 1999-01-01 | 1999-12-31 | 50 | stock clerk |

+-------------+------------+------------+---------------+--------------------------+

10 rows in set (0.03 sec)

JOIN

1. Display job title ,employee id ,number of days between ending date and starting date for all jobs in department 30 from job history.

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 |

| payroll | Matthew |

+------------------+------------+

12 rows in set (0.00 sec)

1. Display department name and manager first name.

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 |

| payroll | Matthew | Tokyo |

+------------------+------------+---------------------+

12 rows in set (0.15 sec)

3>Display department name ,manager name and city.

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 |

| Japan | Tokyo | payroll |

+--------------------------+---------------------+----------------------+

28 rows in set (0.07 sec)

4>Display country name ,city , and department name.

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 |

| 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 |

| ram | 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 (0.05 sec)

5> Display employee name and country in which he is working.

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 |

| ram | 9000 | 9000 |

+-------------+--------+-------------------+

108 rows in set (0.02 sec)

FUNCTIONS:

1>Display employees who joined in the month of May.

select \* from employees where to\_char(hire\_date, 'mon')= 'may'

2>Display first name, salary, and round the salary to thousands.

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 |

| ram | 9000 | 9000 |

+-------------+--------+-------------------+

108 rows in set (0.00 sec)

3>Display first name and date of first salary of the employees.

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 |

| ram | 1994-01-01 | 19940132 |

+-------------+------------+-----------------------+

108 rows in set (0.10 sec)

4> Display first name and experience of the employees.

select first\_name, sysdate(), hire\_date, datediff( sysdate(), hire\_date )/365 from employees;

+-------------+---------------------+------------+--------------------------------------+

| FIRST\_NAME | SYSDATE() | HIRE\_DATE | DATEDIFF( SYSDATE(), hire\_date )/365 |

+-------------+---------------------+------------+--------------------------------------+

| Steven | 2021-01-14 14:53:27 | 1987-06-27 | 33.5753 |

| Neena | 2021-01-14 14:53:27 | 1989-09-21 | 31.3370 |

| Lex | 2021-01-14 14:53:27 | 1993-01-13 | 28.0219 |

| Alexander | 2021-01-14 14:53:27 | 1990-01-03 | 31.0521 |

| Bruce | 2021-01-14 14:53:27 | 1991-05-21 | 29.6740 |

| David | 2021-01-14 14:53:27 | 1997-06-25 | 23.5726 |

| Valli | 2021-01-14 14:53:27 | 1998-02-05 | 22.9562 |

| Diana | 2021-01-14 14:53:27 | 1999-02-07 | 21.9507 |

| Nancy | 2021-01-14 14:53:27 | 1994-08-17 | 26.4301 |

| Daniel | 2021-01-14 14:53:27 | 1994-07-16 | 26.5178 |

| John | 2021-01-14 14:53:27 | 1997-09-28 | 23.3123 |

| Ismael | 2021-01-14 14:53:27 | 1997-08-30 | 23.3918 |

| Jose Manuel | 2021-01-14 14:53:27 | 1998-03-07 | 22.8740 |

| Luis | 2021-01-14 14:53:27 | 1999-12-07 | 21.1205 |

| Den | 2021-01-14 14:53:27 | 1994-12-07 | 26.1233 |

| Alexander | 2021-01-14 14:53:27 | 1995-05-18 | 25.6795 |

| Shelli | 2021-01-14 14:53:27 | 1997-12-24 | 23.0740 |

| Sigal | 2021-01-14 14:53:27 | 1997-07-24 | 23.4932 |

| Guy | 2021-01-14 14:53:27 | 1998-11-15 | 22.1808 |

| Karen | 2021-01-14 14:53:27 | 1999-08-10 | 21.4466 |

| Matthew | 2021-01-14 14:53:27 | 1996-07-18 | 24.5096 |

| Adam | 2021-01-14 14:53:27 | 1997-04-10 | 23.7808 |

| Payam | 2021-01-14 14:53:27 | 1995-05-01 | 25.7260 |

| Shanta | 2021-01-14 14:53:27 | 1997-10-10 | 23.2795 |

| Kevin | 2021-01-14 14:53:27 | 1999-11-16 | 21.1781 |

| Julia | 2021-01-14 14:53:27 | 1997-07-16 | 23.5151 |

| Irene | 2021-01-14 14:53:27 | 1998-09-28 | 22.3123 |

| James | 2021-01-14 14:53:27 | 1999-01-14 | 22.0164 |

| Steven | 2021-01-14 14:53:27 | 2000-03-08 | 20.8685 |

| Laura | 2021-01-14 14:53:27 | 1997-08-20 | 23.4192 |

| Mozhe | 2021-01-14 14:53:27 | 1997-10-30 | 23.2247 |

| James | 2021-01-14 14:53:27 | 1997-02-16 | 23.9260 |

| TJ | 2021-01-14 14:53:27 | 1999-04-10 | 21.7808 |

| Jason | 2021-01-14 14:53:27 | 1996-06-14 | 24.6027 |

| Michael | 2021-01-14 14:53:27 | 1998-08-26 | 22.4027 |

| Ki | 2021-01-14 14:53:27 | 1999-12-12 | 21.1068 |

| Hazel | 2021-01-14 14:53:27 | 2000-02-06 | 20.9534 |

| Renske | 2021-01-14 14:53:27 | 1995-07-14 | 25.5233 |

| Stephen | 2021-01-14 14:53:27 | 1997-10-26 | 23.2356 |

| John | 2021-01-14 14:53:27 | 1998-02-12 | 22.9370 |

| Joshua | 2021-01-14 14:53:27 | 1998-04-06 | 22.7918 |

| Trenna | 2021-01-14 14:53:27 | 1995-10-17 | 25.2630 |

| Curtis | 2021-01-14 14:53:27 | 1997-01-29 | 23.9753 |

| Randall | 2021-01-14 14:53:27 | 1998-03-15 | 22.8521 |

| Peter | 2021-01-14 14:53:27 | 1998-07-09 | 22.5342 |

| John | 2021-01-14 14:53:27 | 1996-10-01 | 24.3041 |

| Karen | 2021-01-14 14:53:27 | 1997-01-05 | 24.0411 |

| Alberto | 2021-01-14 14:53:27 | 1997-03-10 | 23.8658 |

| Gerald | 2021-01-14 14:53:27 | 1999-10-15 | 21.2658 |

| Eleni | 2021-01-14 14:53:27 | 2000-01-29 | 20.9753 |

| Peter | 2021-01-14 14:53:27 | 1997-01-30 | 23.9726 |

| David | 2021-01-14 14:53:27 | 1997-03-24 | 23.8274 |

| Peter | 2021-01-14 14:53:27 | 1997-08-20 | 23.4192 |

| Christopher | 2021-01-14 14:53:27 | 1998-03-30 | 22.8110 |

| Nanette | 2021-01-14 14:53:27 | 1998-12-09 | 22.1151 |

| Oliver | 2021-01-14 14:53:27 | 1999-11-23 | 21.1589 |

| Janette | 2021-01-14 14:53:27 | 1996-01-30 | 24.9753 |

| Patrick | 2021-01-14 14:53:27 | 1996-03-04 | 24.8822 |

| Allan | 2021-01-14 14:53:27 | 1996-07-01 | 24.5562 |

| Lindsey | 2021-01-14 14:53:27 | 1997-03-10 | 23.8658 |

| Louise | 2021-01-14 14:53:27 | 1997-12-15 | 23.0986 |

| Sarath | 2021-01-14 14:53:27 | 1998-11-03 | 22.2137 |

| Clara | 2021-01-14 14:53:27 | 1997-11-11 | 23.1918 |

| Danielle | 2021-01-14 14:53:27 | 1999-03-19 | 21.8411 |

| Mattea | 2021-01-14 14:53:27 | 2000-01-24 | 20.9890 |

| David | 2021-01-14 14:53:27 | 2000-02-23 | 20.9068 |

| Sundar | 2021-01-14 14:53:27 | 2000-03-24 | 20.8247 |

| Amit | 2021-01-14 14:53:27 | 2000-04-21 | 20.7479 |

| Lisa | 2021-01-14 14:53:27 | 1997-03-11 | 23.8630 |

| Harrison | 2021-01-14 14:53:27 | 1998-03-23 | 22.8301 |

| Tayler | 2021-01-14 14:53:27 | 1998-01-24 | 22.9890 |

| William | 2021-01-14 14:53:27 | 1999-02-23 | 21.9068 |

| Elizabeth | 2021-01-14 14:53:27 | 1999-03-24 | 21.8274 |

| Sundita | 2021-01-14 14:53:27 | 2000-04-21 | 20.7479 |

| Ellen | 2021-01-14 14:53:27 | 1996-05-11 | 24.6959 |

| Alyssa | 2021-01-14 14:53:27 | 1997-03-19 | 23.8411 |

| Jonathon | 2021-01-14 14:53:27 | 1998-03-24 | 22.8274 |

| Jack | 2021-01-14 14:53:27 | 1998-04-23 | 22.7452 |

| Kimberely | 2021-01-14 14:53:27 | 1999-05-24 | 21.6603 |

| Charles | 2021-01-14 14:53:27 | 2000-01-04 | 21.0438 |

| Winston | 2021-01-14 14:53:27 | 1998-01-24 | 22.9890 |

| Jean | 2021-01-14 14:53:27 | 1998-02-23 | 22.9068 |

| Martha | 2021-01-14 14:53:27 | 1999-06-21 | 21.5836 |

| Girard | 2021-01-14 14:53:27 | 2000-02-03 | 20.9616 |

| Nandita | 2021-01-14 14:53:27 | 1996-01-27 | 24.9836 |

| Alexis | 2021-01-14 14:53:27 | 1997-02-20 | 23.9151 |

| Julia | 2021-01-14 14:53:27 | 1998-06-24 | 22.5753 |

| Anthony | 2021-01-14 14:53:27 | 1999-02-07 | 21.9507 |

| Kelly | 2021-01-14 14:53:27 | 1997-06-14 | 23.6027 |

| Jennifer | 2021-01-14 14:53:27 | 1997-07-13 | 23.5233 |

| Timothy | 2021-01-14 14:53:27 | 1998-07-11 | 22.5288 |

| Randall | 2021-01-14 14:53:27 | 1999-12-19 | 21.0877 |

| Sarah | 2021-01-14 14:53:27 | 1996-02-04 | 24.9616 |

| Britney | 2021-01-14 14:53:27 | 1997-03-03 | 23.8849 |

| Samuel | 2021-01-14 14:53:27 | 1998-06-01 | 22.6384 |

| Vance | 2021-01-14 14:53:27 | 1999-03-17 | 21.8466 |

| Alana | 2021-01-14 14:53:27 | 1998-04-24 | 22.7425 |

| Kevin | 2021-01-14 14:53:27 | 1998-05-23 | 22.6630 |

| Donald | 2021-01-14 14:53:27 | 1999-06-21 | 21.5836 |

| Douglas | 2021-01-14 14:53:27 | 2000-01-13 | 21.0192 |

| Jennifer | 2021-01-14 14:53:27 | 1987-09-17 | 33.3507 |

| Michael | 2021-01-14 14:53:27 | 1996-02-17 | 24.9260 |

| Pat | 2021-01-14 14:53:27 | 1997-07-17 | 23.5123 |

| Susan | 2021-01-14 14:53:27 | 1994-06-07 | 26.6247 |

| Hermann | 2021-01-14 14:53:27 | 1994-06-07 | 26.6247 |

| Shelley | 2021-01-14 14:53:27 | 1994-06-07 | 26.6247 |

| William | 2021-01-14 14:53:27 | 1994-06-07 | 26.6247 |

| ram | 2021-01-14 14:53:27 | 1994-01-01 | 27.0548 |

+-------------+---------------------+------------+--------------------------------------+

108 rows in set (0.04 sec)

5> Display the length of first name for employees where last name contain character ‘b’ after 3rd position.

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 |

+------------+-----------+

1. rows in set (0.01 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

select upper(first\_name), lower(email) from employees where upper(first\_name)= upper(email);

7>Display employees who joined in the current year.

select \* from employees where(hire\_date,'yyyy')=(sysdate, 'yyyy');

8>Display the number of number of days between system date and 1st janauary 1995.

select sysdate - to\_date('01-jan-1995') from dual;

9>Display how many employees joined in each month of the current year.

select to\_char(hire\_date,'mm'), count (\*) from employees where to\_char(hire\_date,'yyyy')= to\_char(sysdate,'yyyy') group by to\_char(hire\_date,'mm');

AGGREGATE FUNCTION:

1>Display employee ID and the date on which he ended his previous job.

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)

AGGREGATE FUNCTION

1>Display employee ID and the date on which he ended his previous job.

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 (0.02 sec)

2>Display number of employees joined after 15th of the month.

select count(\*) from employees where to\_char(hire\_date,'dd') > 15;

GROUP:

1>Display the country ID and number of cities we have in the country.

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)

2>Display average salary of employees in each department who have commission percentage.

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)

3>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 | 2 | 17300 | 700 |

| 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 | 18800 | 5500 |

| 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 |

+------------+----------+-------------+--------+

1. ows in set (0.00 sec)

4>Display job ID for jobs with average salary more than 10000.

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 |

+---------+-------------+

1. rows in set (0.00 sec)

5>Display years in which more than 10 employees joined.

select to\_char(hire\_date,'yyyy') from employees group by to\_char(hire\_date,'yyyy') having count(employee\_id) > 10;

6>Display departments in which more than five employees have commission percentage.

select department\_id from employees where commission\_pct is not nullgroup by department\_id having count(commission\_pct)>5;

+---------------+

| DEPARTMENT\_ID |

+---------------+

| 80 |

+---------------+

1 row in set (0.00 sec)

7>Display department name and number of employees in the department.

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)

8>Display employee ID for employees who did more than one job in the past.

select department\_name, count(\*) from employees natural join departments group by department\_name;

+-----------------+----------+

| DEPARTMENT\_NAME | COUNT(\*) |

+-----------------+----------+

| Executive | 2 |

| IT | 4 |

| Finance | 5 |

| Purchasing | 5 |

| Shipping | 8 |

| Sales | 6 |

| Marketing | 1 |

| Accounting | 2 |

+-----------------+----------+

8 rows in set (0.02 sec)

12/01/2021

1>Change salary of employee 115 to 8000 if the existing salary is less than 6000

update employees set salary=8000 where employee\_id=115;

query ok, 1 row affected (0.28 sec)

rows matched: 1 changed: 1 warnings: 0

2>Insert a new employee into employees with all the required details

insert into employees values(207,'ram','sita','siyaram','515.123.8182','1994-01-01','ac\_account',9000,null,205,110);

query ok, 1 row affected (0.28 sec)

3>Delete department 20.

alter table employees add constraint emp\_dept\_fk foreign key(department\_id) references departments(department\_id) on delete cascade;

alter table employees drop foreign key emp\_dept\_fk;

delete from departments where department\_id=20;

query ok, 1 row affected (0.28 sec)

4>Change job ID of employee 110 to IT\_PROG if the employee belongs to department 10 and the existing job ID does not start with IT.

update employees set job\_id= 'it\_prog' where employee\_id=110 and department\_id=10 and not job\_id like 'it%' ;

Query OK, 0 rows affected (0.09 sec)

Rows matched: 0 Changed: 0 Warnings: 0

5>Insert a row into departments table with manager ID 120 and location ID in any location ID for city Tokyo.

insert into departments values(280,'payroll',120,1200);

query ok, 1 row affected (0.17 sec)

6>Display job title, employee ID, number of days between ending date and starting date for all jobs in department 30 from job history.

select jh.employee\_id,jh.start\_date,jh.end\_date,jh.department\_id,j.job\_title from job\_history jh,jobs j where jh.job\_id=j.job\_id;

+-------------+------------+------------+---------------+--------------------------+

| employee\_id | start\_date | end\_date | department\_id | job\_title |

+-------------+------------+------------+---------------+--------------------------+

| 101 | 1989-09-21 | 1993-10-27 | 110 | public accountant |

| 200 | 1994-07-01 | 1998-12-31 | 90 | public accountant |

| 101 | 1993-10-28 | 1997-03-15 | 110 | accounting manager |

| 200 | 1987-09-17 | 1993-06-17 | 90 | administration assistant |

| 102 | 1993-01-13 | 1998-07-24 | 60 | programmer |

| 201 | 1996-02-17 | 1999-12-19 | 20 | marketing representative |

| 176 | 1999-01-01 | 1999-12-31 | 80 | sales manager |

| 176 | 1998-03-24 | 1998-12-31 | 80 | sales representative |

| 114 | 1998-03-24 | 1999-12-31 | 50 | stock clerk |

| 122 | 1999-01-01 | 1999-12-31 | 50 | stock clerk |

+-------------+------------+------------+---------------+--------------------------+

10 rows in set (0.03 sec)

SUB QUERY:

1>Display details of departments managed by ‘John’

select \*from departments where department\_id in (select department\_id from employees where first\_name like 'john');

+---------------+-----------------+------------+-------------+

| department\_id | department\_name | manager\_id | location\_id |

+---------------+-----------------+------------+-------------+

| 50 | shipping | 121 | 1500 |

| 80 | sales | 145 | 2500 |

| 100 | finance | 108 | 1700 |

2>Display employees who did not do any job in the past.

select \* from employees where employee\_id not in (select employee\_id from job\_history);

+-------------+-------------+-------------+----------+--------------------+------------+------------+--------+----------------+------------+---------------+

| employee\_id | first\_name | last\_name | email | phone\_int | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id |

+-------------+-------------+-------------+----------+--------------------+------------+------------+--------+----------------+------------+---------------+

| 100 | Steven | King | SKING | 515.123.4567 | 1987-06-27 | AD\_PRES | 24000 | NULL | NULL | 90 |

| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 1990-01-03 | IT\_PROG | 9000 | NULL | 102 | 60 |

| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 1991-05-21 | IT\_PROG | 6000 | NULL | 103 | 60 |

| 105 | David | Austin | DAUSTIN | 590.423.4569 | 1997-06-25 | IT\_PROG | 4800 | NULL | 103 | 60 |

| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 1998-02-05 | IT\_PROG | 4800 | NULL | 103 | 60 |

| 107 | Diana | Lorentz | DLORENTZ | 590.423.5567 | 1999-02-07 | IT\_PROG | 4200 | NULL | 103 | 60 |

| 108 | Nancy | Greenberg | NGREENBE | 515.124.4569 | 1994-08-17 | FI\_MGR | 12000 | NULL | 101 | 100 |

| 109 | Daniel | Faviet | DFAVIET | 515.124.4169 | 1994-07-16 | FI\_ACCOUNT | 9000 | NULL | 108 | 100 |

| 110 | John | Chen | JCHEN | 515.124.4269 | 1997-09-28 | FI\_ACCOUNT | 8200 | NULL | 108 | 100 |

| 111 | Ismael | Sciarra | ISCIARRA | 515.124.4369 | 1997-08-30 | FI\_ACCOUNT | 7700 | NULL | 108 | 100 |

| 112 | Jose Manuel | Urman | JMURMAN | 515.124.4469 | 1998-03-07 | FI\_ACCOUNT | 7800 | NULL | 108 | 100 |

| 113 | Luis | Popp | LPOPP | 515.124.4567 | 1999-12-07 | FI\_ACCOUNT | 6900 | NULL | 108 | 100 |

| 115 | Alexander | Khoo | AKHOO | 515.127.4562 | 1995-05-18 | PU\_CLERK | 8000 | NULL | 114 | 30 |

| 116 | Shelli | Baida | SBAIDA | 515.127.4563 | 1997-12-24 | PU\_CLERK | 2900 | NULL | 114 | 30 |

| 117 | Sigal | Tobias | STOBIAS | 515.127.4564 | 1997-07-24 | PU\_CLERK | 2800 | NULL | 114 | 30 |

| 118 | Guy | Himuro | GHIMURO | 515.127.4565 | 1998-11-15 | PU\_CLERK | 2600 | NULL | 114 | 30 |

| 119 | Karen | Colmenares | KCOLMENA | 515.127.4566 | 1999-08-10 | PU\_CLERK | 2500 | NULL | 114 | 30 |

| 120 | Matthew | Weiss | MWEISS | 650.123.1234 | 1996-07-18 | ST\_MAN | 8000 | NULL | 100 | 50 |

| 121 | Adam | Fripp | AFRIPP | 650.123.2234 | 1997-04-10 | ST\_MAN | 8200 | NULL | 100 | 50 |

| 123 | Shanta | Vollman | SVOLLMAN | 650.123.4234 | 1997-10-10 | ST\_MAN | 6500 | NULL | 100 | 50 |

| 124 | Kevin | Mourgos | KMOURGOS | 650.123.5234 | 1999-11-16 | ST\_MAN | 5800 | NULL | 100 | 50 |

| 125 | Julia | Nayer | JNAYER | 650.124.1214 | 1997-07-16 | ST\_CLERK | 3200 | NULL | 120 | 50 |

| 126 | Irene | Mikkilineni | IMIKKILI | 650.124.1224 | 1998-09-28 | ST\_CLERK | 2700 | NULL | 120 | 50 |

| 127 | James | Landry | JLANDRY | 650.124.1334 | 1999-01-14 | ST\_CLERK | 2400 | NULL | 120 | 50 |

| 128 | Steven | Markle | SMARKLE | 650.124.1434 | 2000-03-08 | ST\_CLERK | 2200 | NULL | 120 | 50 |

| 129 | Laura | Bissot | LBISSOT | 650.124.5234 | 1997-08-20 | ST\_CLERK | 3300 | NULL | 121 | 50 |

| 130 | Mozhe | Atkinson | MATKINSO | 650.124.6234 | 1997-10-30 | ST\_CLERK | 2800 | NULL | 121 | 50 |

| 131 | James | Marlow | JAMRLOW | 650.124.7234 | 1997-02-16 | ST\_CLERK | 2500 | NULL | 121 | 50 |

| 132 | TJ | Olson | TJOLSON | 650.124.8234 | 1999-04-10 | ST\_CLERK | 2100 | NULL | 121 | 50 |

| 133 | Jason | Mallin | JMALLIN | 650.127.1934 | 1996-06-14 | ST\_CLERK | 3300 | NULL | 122 | 50 |

| 134 | Michael | Rogers | MROGERS | 650.127.1834 | 1998-08-26 | ST\_CLERK | 2900 | NULL | 122 | 50 |

| 135 | Ki | Gee | KGEE | 650.127.1734 | 1999-12-12 | ST\_CLERK | 2400 | NULL | 122 | 50 |

| 136 | Hazel | Philtanker | HPHILTAN | 650.127.1634 | 2000-02-06 | ST\_CLERK | 2200 | NULL | 122 | 50 |

| 137 | Renske | Ladwig | RLADWIG | 650.121.1234 | 1995-07-14 | ST\_CLERK | 3600 | NULL | 123 | 50 |

| 138 | Stephen | Stiles | SSTILES | 650.121.2034 | 1997-10-26 | ST\_CLERK | 3200 | NULL | 123 | 50 |

| 139 | John | Seo | JSEO | 650.121.2019 | 1998-02-12 | ST\_CLERK | 2700 | NULL | 123 | 50 |

| 140 | Joshua | Patel | JPATEL | 650.121.1834 | 1998-04-06 | ST\_CLERK | 2500 | NULL | 123 | 50 |

| 141 | Trenna | Rajs | TRAJS | 650.121.8009 | 1995-10-17 | ST\_CLERK | 3500 | NULL | 124 | 50 |

| 142 | Curtis | Davies | CDAVIES | 650.121.2994 | 1997-01-29 | ST\_CLERK | 3100 | NULL | 124 | 50 |

| 143 | Randall | Matos | RMATOS | 650.121.2874 | 1998-03-15 | ST\_CLERK | 2600 | NULL | 124 | 50 |

| 144 | Peter | Vargas | PVARGAS | 650.121.2004 | 1998-07-09 | ST\_CLERK | 2500 | NULL | 124 | 50 |

| 145 | John | Russell | JRUSSEL | 011.44.1344.429268 | 1996-10-01 | SA\_MAN | 14000 | 0.4 | 100 | 80 |

| 146 | Karen | Partners | KPARTNER | 011.44.1344.467268 | 1997-01-05 | SA\_MAN | 13500 | 0.3 | 100 | 80 |

| 147 | Alberto | Errazuriz | AERRAZUR | 011.44.1344.429278 | 1997-03-10 | SA\_MAN | 12000 | 0.3 | 100 | 80 |

| 148 | Gerald | Cambrault | GCAMBRAU | 011.44.1344.619268 | 1999-10-15 | SA\_MAN | 11000 | 0.3 | 100 | 80 |

| 149 | Eleni | Zlotkey | EZLOTKEY | 011.44.1344.429018 | 2000-01-29 | SA\_MAN | 10500 | 0.2 | 100 | 80 |

| 150 | Peter | Tucker | PTUCKER | 011.44.1344.129268 | 1997-01-30 | SA\_REP | 10000 | 0.3 | 145 | 80 |

| 151 | David | Bernstein | DBERNSTE | 011.44.1344.345268 | 1997-03-24 | SA\_REP | 9500 | 0.25 | 145 | 80 |

| 152 | Peter | Hall | PHALL | 011.44.1344.478968 | 1997-08-20 | SA\_REP | 9000 | 0.25 | 145 | 80 |

| 153 | Christopher | Olsen | COLSEN | 011.44.1344.498718 | 1998-03-30 | SA\_REP | 8000 | 0.2 | 145 | 80 |

| 154 | Nanette | Cambrault | NCAMBRAU | 011.44.1344.987668 | 1998-12-09 | SA\_REP | 7500 | 0.2 | 145 | 80 |

| 155 | Oliver | Tuvault | OTUVAULT | 011.44.1344.486508 | 1999-11-23 | SA\_REP | 7000 | 0.15 | 145 | 80 |

| 156 | Janette | King | JKING | 011.44.1345.429268 | 1996-01-30 | SA\_REP | 10000 | 0.35 | 146 | 80 |

| 157 | Patrick | Sully | PSULLY | 011.44.1345.929268 | 1996-03-04 | SA\_REP | 9500 | 0.35 | 146 | 80 |

| 158 | Allan | McEwen | AMCEWEN | 011.44.1345.829268 | 1996-07-01 | SA\_REP | 9000 | 0.35 | 146 | 80 |

| 159 | Lindsey | Smith | LSMITH | 011.44.1345.729268 | 1997-03-10 | SA\_REP | 8000 | 0.3 | 146 | 80 |

| 160 | Louise | Doran | LDORAN | 011.44.1345.629268 | 1997-12-15 | SA\_REP | 7500 | 0.3 | 146 | 80 |

| 161 | Sarath | Sewall | SSEWALL | 011.44.1345.529268 | 1998-11-03 | SA\_REP | 7000 | 0.25 | 146 | 80 |

| 162 | Clara | Vishney | CVISHNEY | 011.44.1346.129268 | 1997-11-11 | SA\_REP | 10500 | 0.25 | 147 | 80 |

| 163 | Danielle | Greene | DGREENE | 011.44.1346.229268 | 1999-03-19 | SA\_REP | 9500 | 0.15 | 147 | 80 |

| 164 | Mattea | Marvins | MMARVINS | 011.44.1346.329268 | 2000-01-24 | SA\_REP | 7200 | 0.1 | 147 | 80 |

| 165 | David | Lee | DLEE | 011.44.1346.529268 | 2000-02-23 | SA\_REP | 6800 | 0.1 | 147 | 80 |

| 166 | Sundar | Ande | SANDE | 011.44.1346.629268 | 2000-03-24 | SA\_REP | 6400 | 0.1 | 147 | 80 |

| 167 | Amit | Banda | ABANDA | 011.44.1346.729268 | 2000-04-21 | SA\_REP | 6200 | 0.1 | 147 | 80 |

| 168 | Lisa | Ozer | LOZER | 011.44.1343.929268 | 1997-03-11 | SA\_REP | 11500 | 0.25 | 148 | 80 |

| 169 | Harrison | Bloom | HBLOOM | 011.44.1343.829268 | 1998-03-23 | SA\_REP | 10000 | 0.2 | 148 | 80 |

| 170 | Tayler | Fox | TFOX | 011.44.1343.729268 | 1998-01-24 | SA\_REP | 9600 | 0.2 | 148 | 80 |

| 171 | William | Smith | WSMITH | 011.44.1343.629268 | 1999-02-23 | SA\_REP | 7400 | 0.15 | 148 | 80 |

| 172 | Elizabeth | Bates | EBATES | 011.44.1343.529268 | 1999-03-24 | SA\_REP | 7300 | 0.15 | 148 | 80 |

| 173 | Sundita | Kumar | SKUMAR | 011.44.1343.329268 | 2000-04-21 | SA\_REP | 6100 | 0.1 | 148 | 80 |

| 174 | Ellen | Abel | EABEL | 011.44.1644.429267 | 1996-05-11 | SA\_REP | 11000 | 0.3 | 149 | 80 |

| 175 | Alyssa | Hutton | AHUTTON | 011.44.1644.429266 | 1997-03-19 | SA\_REP | 8800 | 0.25 | 149 | 80 |

| 177 | Jack | Livingston | JLIVINGS | 011.44.1644.429264 | 1998-04-23 | SA\_REP | 8400 | 0.2 | 149 | 80 |

| 178 | Kimberely | Grant | KGRANT | 011.44.1644.429263 | 1999-05-24 | SA\_REP | 7000 | 0.15 | 149 | NULL |

| 179 | Charles | Johnson | CJOHNSON | 011.44.1644.429262 | 2000-01-04 | SA\_REP | 6200 | 0.1 | 149 | 80 |

| 180 | Winston | Taylor | WTAYLOR | 650.507.9876 | 1998-01-24 | SH\_CLERK | 3200 | NULL | 120 | 50 |

| 181 | Jean | Fleaur | JFLEAUR | 650.507.9877 | 1998-02-23 | SH\_CLERK | 3100 | NULL | 120 | 50 |

| 182 | Martha | Sullivan | MSULLIVA | 650.507.9878 | 1999-06-21 | SH\_CLERK | 2500 | NULL | 120 | 50 |

| 183 | Girard | Geoni | GGEONI | 650.507.9879 | 2000-02-03 | SH\_CLERK | 2800 | NULL | 120 | 50 |

| 184 | Nandita | Sarchand | NSARCHAN | 650.509.1876 | 1996-01-27 | SH\_CLERK | 4200 | NULL | 121 | 50 |

| 185 | Alexis | Bull | ABULL | 650.509.2876 | 1997-02-20 | SH\_CLERK | 4100 | NULL | 121 | 50 |

| 186 | Julia | Dellinger | JDELLING | 650.509.3876 | 1998-06-24 | SH\_CLERK | 3400 | NULL | 121 | 50 |

| 187 | Anthony | Cabrio | ACABRIO | 650.509.4876 | 1999-02-07 | SH\_CLERK | 3000 | NULL | 121 | 50 |

| 188 | Kelly | Chung | KCHUNG | 650.505.1876 | 1997-06-14 | SH\_CLERK | 3800 | NULL | 122 | 50 |

| 189 | Jennifer | Dilly | JDILLY | 650.505.2876 | 1997-07-13 | SH\_CLERK | 3600 | NULL | 122 | 50 |

| 190 | Timothy | Gates | TGATES | 650.505.3876 | 1998-07-11 | SH\_CLERK | 2900 | NULL | 122 | 50 |

| 191 | Randall | Perkins | RPERKINS | 650.505.4876 | 1999-12-19 | SH\_CLERK | 2500 | NULL | 122 | 50 |

| 192 | Sarah | Bell | SBELL | 650.501.1876 | 1996-02-04 | SH\_CLERK | 4000 | NULL | 123 | 50 |

| 193 | Britney | Everett | BEVERETT | 650.501.2876 | 1997-03-03 | SH\_CLERK | 3900 | NULL | 123 | 50 |

| 194 | Samuel | McCain | SMCCAIN | 650.501.3876 | 1998-06-01 | SH\_CLERK | 3200 | NULL | 123 | 50 |

| 195 | Vance | Jones | VJONES | 650.501.4876 | 1999-03-17 | SH\_CLERK | 2800 | NULL | 123 | 50 |

| 196 | Alana | Walsh | AWALSH | 650.507.9811 | 1998-04-24 | SH\_CLERK | 3100 | NULL | 124 | 50 |

| 197 | Kevin | Feeney | KFEENEY | 650.507.9822 | 1998-05-23 | SH\_CLERK | 3000 | NULL | 124 | 50 |

| 198 | Donald | OConnell | DOCONNEL | 650.507.9833 | 1999-06-21 | SH\_CLERK | 2600 | NULL | 124 | 50 |

| 199 | Douglas | Grant | DGRANT | 650.507.9844 | 2000-01-13 | SH\_CLERK | 2600 | NULL | 124 | 50 |

| 202 | Pat | Fay | PFAY | 603.123.6666 | 1997-07-17 | MK\_REP | 6000 | NULL | 201 | 20 |

| 203 | Susan | Mavris | SMAVRIS | 515.123.7777 | 1994-06-07 | HR\_REP | 6500 | NULL | 101 | 40 |

| 204 | Hermann | Baer | HBAER | 515.123.8888 | 1994-06-07 | PR\_REP | 10000 | NULL | 101 | 70 |

| 205 | Shelley | Higgins | SHIGGINS | 515.123.8080 | 1994-06-07 | AC\_MGR | 12000 | NULL | 101 | 110 |

| 206 | William | Gietz | WGIETZ | 515.123.8181 | 1994-06-07 | AC\_ACCOUNT | 8300 | NULL | 205 | 110 |

| 207 | ram | sita | SIYARAM | 515.123.8182 | 1994-01-01 | AC\_ACCOUNT | 9000 | NULL | 205 | 110 |

+-------------+-------------+-------------+----------+--------------------+------------+------------+--------+----------------+------------+---------------+

101 rows in set (0.00 sec)

3>Display job title and average salary for employees who did a job in the past.

select job\_title, avg(salary) from jobs natural join employees group by job\_title where employee\_id in(select employee\_id from job\_history);

4>Display details of manager who manages more than 5 employees.

select country\_name, city, count(department\_id) from countries join locations using (country\_id) join departments using (location\_id) where department\_id in (select department\_id from employees group by department\_id having count(department\_id)>5) group by country\_name, city;

+--------------------------+---------------------+----------------------+

| COUNTRY\_NAME | CITY | COUNT(DEPARTMENT\_ID) |

+--------------------------+---------------------+----------------------+

| United States of America | South San Francisco | 1 |

| United States of America | Seattle | 2 |

| United Kingdom | Oxford | 1 |

+--------------------------+---------------------+----------------------+

3 rows in set (0.02 sec)

5> Display country name, city, and number of departments where department has more than 5 employees.

select \* from jobs where job\_id in (select job\_id from employees where employee\_id in (select employee\_id from job\_history where job\_id='it\_prog'));

+--------+-------------------------------+------------+------------+

| job\_id | job\_title | min\_salary | max\_salary |

+--------+-------------------------------+------------+------------+

| AD\_VP | Administration Vice President | 15000 | 30000 |

+--------+-------------------------------+------------+------------+

1 row in set (0.00 sec)

6> Display details of current job for employees who worked as IT Programmers in the past.

select department\_id,first\_name, salary from employees outer where salary = (select max(salary) from employees where department\_id = outer.department\_id);

7> Display the details of employees drawing the highest salary in the department.

select salary from employees mainwhere 2 = (select count( distinct salary ) from employees where salary > main.salary);

+--------+

| salary |

+--------+

| 14000 |

+--------+

1. row in set (0.08 sec)

8>Display third highest salary of all employees

mysql> select salary from employees main where 2 = (select count( distinct salary ) from employees where salary > main.salary);

+--------+

| salary |

+--------+

| 14000 |

+--------+

1 row in set (0.01 sec)

DDL Assignments with Constraints

1. Table ---> Customer

custId, firstName,lastName,age,city, mobileNumber, dob

Add the Constraints

custId is Primary Key

firstName not null

age must be greater than 21

mobile must be unique

Ans: CREATE TABLE customer(custid VARCHAR(10),fname VARCHAR(40) not null,ltname VARCHAR(30),city VARCHAR(35),mobileno VARCHAR(10) unique,age varchar(10) check(age>21) ,dob DATE,CONSTRAINT customer\_custid\_pk PRIMARY KEY(custid));

Query OK, 0 rows affected (2.73 sec)

1. Table ----> Branch

branchId, branchName, city

Add the Constraints

branchId is Primary Key

branchName not null

city not null

Ans: CREATE TABLE branch(bid VARCHAR(9),bname VARCHAR(90),bcity VARCHAR(80) not null,CONSTRAINT branch\_bid\_pk PRIMARY KEY(bid));

Query OK, 0 rows affected (1.10 sec)

1. Table -----> Account

accountNumber, openingBalance, typeOfAccount, status,BankId,CustId

Add the Constraints

accountNumber is primary key

openingBalance must be greater than 5000

typeOfAccount must be saving/current

BankId is foreign key refer to BranchId(Primary key) Branch table

CustId is foreign key refer to Customer(Primary key) Customer table

Ans: CREATE TABLE account(acnumber VARCHAR(6),custid VARCHAR(6),bid VARCHAR(6),opening\_balance INT(7), typeOfAccount enum('savings','current')VARCHAR(10),astatus VARCHAR(10),CONSTRAINT account\_acnumber\_pk PRIMARY KEY(acnumber),CONSTRAINT account\_custid\_fk FOREIGN KEY(custid) REFERENCES customer(custid),CONSTRAINT account\_bid\_fk FOREIGN KEY(bid) REFERENCES branch(bid));

Query OK, 0 rows affected, 1 warning (0.97 sec)

1. Table ----> Transaction

transactionId, transactionDate, MediumOfTransaction, TransactionAmount

Add the Constraints

transactionId is primary key

Ans: CREATE TABLE transaction(transaction\_id int,medium\_of\_transaction VARCHAR(20),transaction\_amount INT(9),transaction\_date date,CONSTRAINT trandetails\_id\_pk PRIMARY KEY(transaction\_id));

Query OK, 0 rows affected, 1 warning (0.83 sec)

Table 5 Loan

CREATE TABLE loan(custid VARCHAR(6),loan\_id varchar (10),bid VARCHAR(6),loan\_amount INT(7),CONSTRAINT loan\_customer\_custid\_bid\_pk PRIMARY KEY(custid,bid),CONSTRAINT loan\_custid\_fk FOREIGN KEY(custid) REFERENCES customer(custid),CONSTRAINT loan\_bid\_fk FOREIGN KEY(bid) REFERENCES branch(bid) );

Query OK, 0 rows affected, 1 warning (2.23 sec)