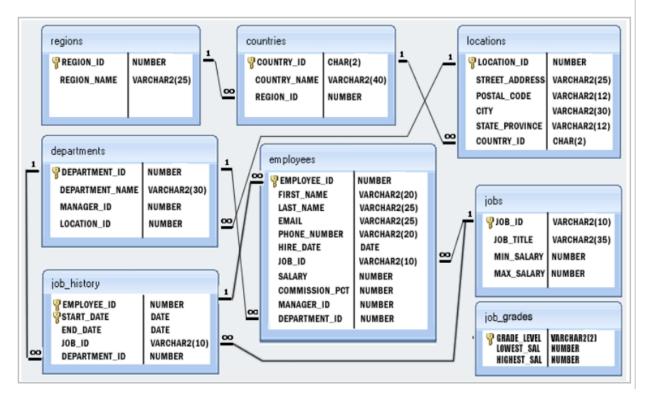
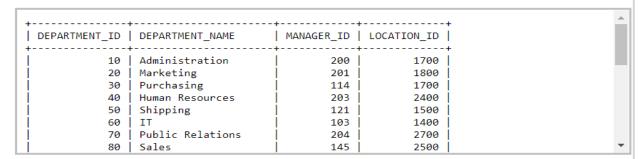
SQL Exercise on Joins:

Structure of HR database:



1. From the following tables, write a SQL query to find the first name, last name, department number, and department name for each employee. Go to the editor

Sample table: departments



Sample table: employees

| | + | + | -+ | + | | + |
|-----|------------|---------|----------|----------------|------------|---------------|
| BER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
| 567 | 2003-06-17 | AD_PRES | 24000.00 | 0.00 | 0 | 90 |
| 568 | 2005-09-21 | AD_VP | 17000.00 | 0.00 | 100 | 90 |
| 569 | 2001-01-13 | AD_VP | 17000.00 | 0.00 | 100 | 90 |
| 567 | 2006-01-03 | IT_PROG | 9000.00 | 0.00 | 102 | 60 |
| 568 | 2007-05-21 | IT_PROG | 6000.00 | 0.00 | 103 | 60 |
| 569 | 2005-06-25 | IT PROG | 4800.00 | 0.00 | 103 | 60 |
| 560 | 2006-02-05 | IT PROG | 4800.00 | 0.00 | 103 | 60 |
| 4 | | | | | |) |

2. From the following tables, write a SQL query to find the first name, last name, department, city, and state province for each employee. Go to the editor

Sample table: departments

| 40 | Human Resources | 203 | 2400 | <u> </u> |
|-----|----------------------|-----|----------|----------|
| 50 | Shipping | 121 | 1500 | |
| 60 | IT | 103 | 1400 | |
| 70 | Public Relations | 204 | 2700 | |
| 80 | Sales | 145 | 2500 | |
| 90 | Executive | 100 | 1700 | |
| 100 | Finance | 108 | 1700 | |
| 110 | Accounting | 205 | 1700 | |
| 120 | Treasury | 0 | 1700 | |
| 130 | Corporate Tax | 0 | 1700 | |
| 140 | Control And Credit | 0 | 1700 | |
| 150 | Shanohaldan Sanvicas | ۱ ۵ | l 1700 l | * |

Sample table: employees

| + | + | + | -+ | + | + | |
|-------------|------------|-----------|----------|--------------|------------|------|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ |
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_F |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_\ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_\ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT_F |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_F |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_F |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT F |
| | | | | | | - |

Sample table: locations

| 1 . | | | | | _ | |
|-----|-------------|----------------------|-------------|------|---|--|
| Ιį | LOCATION_ID | STREET_ADDRESS | POSTAL_CODE | CITY | | |
| † | 1000 | 1297 Via Cola di Rie | 989 | Roma | T | |

3. From the following table, write a SQL query to find the first name, last name, salary, and job grade for all employees. Go to the editor

Sample table: employees

| 1 | 100 | Dunitei | TUVICE | I DI UATEL I | J1J.127.710J | 1 2002 00 10 | ! ' * _ ' . |
|---|-----|-------------|------------|--------------|--------------|--------------|------------------------|
| | 110 | John | Chen | JCHEN | 515.124.4269 | 2005-09-28 | FI_/ ^ |
| | 111 | Ismael | Sciarra | ISCIARRA | 515.124.4369 | 2005-09-30 | FI_/ |
| | 112 | Jose Manuel | Urman | JMURMAN | 515.124.4469 | 2006-03-07 | FI_/ |
| | 113 | Luis | Popp | LPOPP | 515.124.4567 | 2007-12-07 | FI_/ |
| | 114 | Den | Raphaely | DRAPHEAL | 515.127.4561 | 2002-12-07 | PU_I |
| | 115 | Alexander | Khoo | AKH00 | 515.127.4562 | 2003-05-18 | PU_(|
| | 116 | Shelli | Baida | SBAIDA | 515.127.4563 | 2005-12-24 | PU_(|
| | 117 | Sigal | Tobias | STOBIAS | 515.127.4564 | 2005-07-24 | PU_(|
| | 118 | Guy | Himuro | GHIMURO | 515.127.4565 | 2006-11-15 | PU_(|
| | 119 | Karen | Colmenares | KCOLMENA | 515.127.4566 | 2007-08-10 | PU_(▼ |
| 4 | | | | | | | ▶ |

Sample table: job_grades

| GRADE_LEVEL | LOWEST_SA | L HIGHEST_SAL |
|-------------|-----------|---------------|
| A | 1000 | 2999 |
| В | 3000 | 5999 |
| C | 6000 | 9999 |
| D | 10000 | 14999 |
| E | 15000 | 24999 |
| F | 25000 | 40000 |

4. From the following tables, write a SQL query to find all those employees who work in department ID 80 or 40. Return first name, last name, department number and department name. Go to the editor

Sample table: departments

| + | + | -+ | + |
|---------------|-----------------------|-------------|-------------|
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
| 10 | + Administration | -+ 200 | + 1700 |
| 20 | Marketing | 201 | 1800 |
| 30 | Purchasing | 114 | 1700 |
| 40 | Human Resources | 203 | 2400 |
| 50 | Shipping | 121 | 1500 |
| 60 | IT | 103 | 1400 |
| 70 | Public Relations | 204 | 2700 |
| 80 | Sales | 145 | 2500 |

Sample table: employees

| | + | + | + | + | + | |
|-------------|------------|-----------|----------|--------------|------------|------|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ |
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_F |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_\ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_\ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT F |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_F |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_F |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT F |
| | | | | | | - |

5. From the following tables, write a SQL query to find those employees whose first name contains the letter 'z'. Return first name, last name, department, city, and state province.

Sample table: departments

| | + | + | + | |
|---------------|-----------------------|------------|-------------|--|
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID | |
| 10 | + Administration | 200 | 1700 | |
| 20 | Marketing | 201 | 1800 | |
| 30 | Purchasing | 114 | 1700 | |
| 40 | Human Resources | 203 | 2400 | |
| 50 | Shipping | 121 | 1500 | |
| 60 | IT . | 103 | 1400 | |
| 70 | Public Relations | 204 | 2700 | |
| 80 | Sales | 145 | 2500 | |

Sample table: employees

| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 I | T_F 🛦 |
|-------|-------------|-----------|----------|--------------|------------------|----------|
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 I | [T_F_ |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 I | T_F |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 I | T_F |
| 107 | Diana | Lorentz | DLORENTZ | 590.423.5567 | 2007-02-07 I | T_F |
| 108 | Nancy | Greenberg | NGREENBE | 515.124.4569 | 2002-08-17 F | I_1 |
| 109 | Daniel | Faviet | DFAVIET | 515.124.4169 | 2002-08-16 F | I_/ |
| 110 | John | Chen | JCHEN | 515.124.4269 | 2005-09-28 F | I_/ |
| 111 | Ismael | Sciarra | ISCIARRA | 515.124.4369 | 2005-09-30 F | I_/ |
| 112 | Jose Manuel | Urman | JMURMAN | 515.124.4469 | 2006-03-07 F | I_/ _ |
| 1 113 | 1 12 = | D= | LDODD | F4F 404 4FC7 | 1 2007 42 07 1 5 | * |

Sample table: locations

| | | | | _ |
|-------------|----------------------|-------------|------|---|
| LOCATION_ID | STREET_ADDRESS | POSTAL_CODE | CITY | |
| 1000 | 1297 Via Cola di Rie | 989 | Roma | T |

13. From the following tables, write a SQL query to find all employees who joined on 1st January 1993 and left on or before 31 August 1997. Return job title, department name, employee name, and joining date of the job. Go to the editor

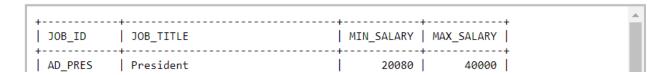
Sample table: job_history

| EMPLOYEE_ID | START_DATE | END_DATE | JOB_ID | DEPARTMENT_ID |
|-------------|------------|------------|------------|---------------|
| 102 | 2001-01-13 | 2006-07-24 | IT_PROG | 60 |
| 101 | 1997-09-21 | 2001-10-27 | AC_ACCOUNT | 110 |
| 101 | 2001-10-28 | 2005-03-15 | AC_MGR | 110 |
| 201 | 2004-02-17 | 2007-12-19 | MK_REP | 20 |
| 114 | 2006-03-24 | 2007-12-31 | ST_CLERK | 50 |
| 122 | 2007-01-01 | 2007-12-31 | ST_CLERK | 50 |
| 200 | 1995-09-17 | 2001-06-17 | AD_ASST | 90 |
| 176 | 2006-03-24 | 2006-12-31 | SA REP | 80 |

Sample table: employees

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB |
|-------------|------------|-----------|----------|--------------|------------|-----|
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_ |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT |

Sample table: jobs



Sample Table: departments

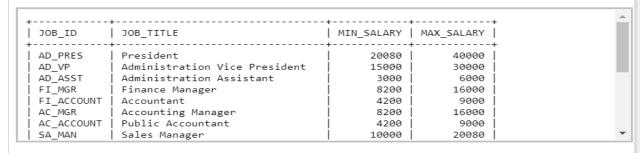
(Hint: Use all 4 tables to get the output)

14. From the following tables, write a SQL query to calculate the difference between the maximum salary of the job and the employee's salary. Return job title, employee name, and salary difference. Go to the editor

Sample table: employees

| | + | + | + | + | + | |
|-------------|------------|-----------|----------|--------------|------------|-----|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB |
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_ |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT_ |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_ |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_ |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT |
| | | | | | | • |

Sample table: jobs



15. From the following table, write a SQL query to calculate the average salary, the number of employees receiving commissions in that department. Return department name, average salary and number of employees. Go to the editor

Sample table: employees

| | + | + | + | + | + | + |
|-------------|------------|-----------|----------|--------------|------------|-----|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOE |
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_ |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT |
| | | | | | | - |

Sample table : departments

| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID | |
|---------------|-----------------------|------------|--------------|--|
| 10 | + Administration | 200 | ++ 1700 | |
| 20 | Marketing | 201 | 1800 | |
| 30 | Purchasing | 114 | 1700 | |
| 40 | Human Resources | 203 | 2400 | |
| 50 | Shipping | 121 | 1500 | |
| 60 | IT | 103 | 1400 | |
| 70 | Public Relations | 204 | 2700 | |
| 80 | Sales | 145 | 2500 | |

16. From the following tables, write a SQL query to calculate the difference between the maximum salary and the salary of all the employees who work in the department of ID 80. Return job title, employee name and salary difference. Go to the editor

Sample table: employees

| | | : | + | | | |
|-------------|---------------|-----------|----------|--------------|------------|-----|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB |
| 100 | + Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD |
| | | | | | | _ |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT_ |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_ |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_ |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | TT |

Sample table: jobs

| + | + | _+ | + |
|---------|-------------------------------|-------|------------|
| JOB_ID | JOB_TITLE | | MAX_SALARY |
| AD_PRES | President | 20080 | 40000 |
| AD_VP | Administration Vice President | 15000 | 30000 |
| AD_ASST | Administration Assistant | 3000 | 6000 |

17. From the following table, write a SQL query to find the name of the country, city, and departments, which are running there. Go to the editor

Sample table: countries

| + | + | |
|------------|--------------|-----------|
| COUNTRY_ID | COUNTRY_NAME | REGION_ID |
| | · · · · · · | |
| AR | Argentina | 2 |
| AU | Australia | 3 |
| BE | Belgium | 1 |
| BR | Brazil | 2 |
| CA | Canada | 2 |
| CH | Switzerland | 1 |
| CN | China | 3 |
| DE | Germany | 1 |

Sample table: locations

| LOCATION_ID | STREET_ADDRESS | POSTAL_CODE | CITY |
|-------------|-------------------------|-------------|---------------------|
| 1000 | 1297 Via Cola di Rie | 989 | Roma |
| 1100 | 93091 Calle della Testa | 10934 | Venice |
| 1200 | 2017 Shinjuku-ku | 1689 | Tokyo |
| 1300 | 9450 Kamiya-cho | 6823 | Hiroshima |
| 1400 | 2014 Jabberwocky Rd | 26192 | Southlake |
| 1500 | 2011 Interiors Blvd | 99236 | South San Francisco |
| 1600 | 2007 Zagora St | 50090 | South Brunswick |

Sample table: departments

| | + | | |
|---------------|-----------------------------|----------------|----------------|
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
| | Administration Marketing | 200 201 | 1700 1800 |

18. From the following tables, write a SQL query to find the department name and the full name (first and last name) of the manager. Go to the editor

Sample table: departments

| + | + | -+ | + |
|---------------|------------------|------------|----------------|
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
| ļ | + | -+ | + - |
| 10 | Administration | 200 | 1700 |
| 20 | Marketing | 201 | 1800 |
| 30 | Purchasing | 114 | 1700 |
| 40 | Human Resources | 203 | 2400 |
| 50 | Shipping | 121 | 1500 |
| 60 | IT | 103 | 1400 |
| 70 | Public Relations | 204 | 2700 |
| 80 | Sales | 145 | 2500 |

Sample table: employees

| | + | -+ | + | + | + | + |
|------------|-----------|----------|--------------|------------|---------|----------|
| FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY |
| Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_PRES | 24000.6 |
| Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_VP | 17000.6 |
| Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_VP | 17000.6 |
| Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT_PROG | 9000.6 |
| Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_PROG | 6000.6 |
| David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_PROG | 4800.6 |
| Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT PROG | 4800.6 |
| 4 | | | | | | • |

19. From the following table, write a SQL query to calculate the average salary of employees for each job title. Go to the editor

Sample table: employees



Sample table: jobs

| + | + | -+ | + |
|--------------|-------------------------------|------------|------------|
| JOB_ID | JOB_TITLE | MIN_SALARY | MAX_SALARY |
| AD_PRES | President | 20080 | 40000 |
| AD_VP | Administration Vice President | 15000 | 30000 |
| AD_ASST | Administration Assistant | 3000 | 6000 |
| FI_MGR | Finance Manager | 8200 | 16000 |
| FI_ACCOUNT | Accountant | 4200 | 9000 |
| AC_MGR | Accounting Manager | 8200 | 16000 |
| I AC ACCOUNT | Dublic Accountant | 1 1200 | l gaaa |

20. From the following table, write a SQL query to find the employees who earn \$12000 or more. Return employee ID, starting date, end date, job ID and department ID. Go to the editor

Sample table: employees

| | | | | | | _ |
|-----|--------|-------------|----------|--------------|------------|---------------|
| 123 | Shanta | Vollman | SVOLLMAN | 650.123.4234 | 2005-10-10 | ST_N 🌥 |
| 124 | Kevin | Mourgos | KMOURGOS | 650.123.5234 | 2007-11-16 | ST_N |
| 125 | Julia | Nayer | JNAYER | 650.124.1214 | 2005-07-16 | ST_(|
| 126 | Irene | Mikkilineni | IMIKKILI | 650.124.1224 | 2006-09-28 | ST_(|
| 127 | James | Landry | JLANDRY | 650.124.1334 | 2007-01-14 | ST_(|
| 128 | Steven | Markle | SMARKLE | 650.124.1434 | 2008-03-08 | ST_(|
| 129 | Laura | Bissot | LBISSOT | 650.124.5234 | 2005-08-20 | ST_(|
| 130 | Mozhe | Atkinson | MATKINSO | 650.124.6234 | 2005-10-30 | ST_(|
| 131 | James | Marlow | JAMRLOW | 650.124.7234 | 2005-02-16 | ST_(|
| 132 | TJ | Olson | TJOLSON | 650.124.8234 | 2007-04-10 | ST_(▼ |
| 4 | | | | | | • |

Sample table: job_history

| | + | | + | | + |
|-------------|-------------------|------------|------------|---------------|------------------|
| EMPLOYEE_ID | START_DATE | END_DATE | JOB_ID | DEPARTMENT_ID | |
| 102 | + 2001-01-13 | 2006-07-24 | IT PROG | | - |
| 101 | 1997-09-21 | 2001-10-27 | AC_ACCOUNT | 110 | |
| 101 | 2001-10-28 | 2005-03-15 | AC_MGR | 110 | |
| 201 | 2004-02-17 | 2007-12-19 | MK_REP | 20 | |
| 114 | 2006-03-24 | 2007-12-31 | ST_CLERK | 50 | |
| 122 | 2007-01-01 | 2007-12-31 | ST_CLERK | 50 | |
| 200 | 1995-09-17 | 2001-06-17 | AD_ASST | 90 | |
| 176 | 2006-03-24 | 2006-12-31 | SA_REP | 80 | |

21. From the following tables, write a SQL query to find out which departments have at least two employees. Group the result set on country name and city. Return country name, city, and number. Go to the editor

Sample table: countries

| KW I | Kuwait | 4 | |
|--------|--------------------------|---|--|
| ML I | Malaysia | 3 | |
| MX I | Mexico | 2 | |
| NG I | Nigeria | 4 | |
| NL I | Netherlands | 1 | |
| SG : | Singapore | 3 | |
| UK I | United Kingdom | 1 | |
| US U | United States of America | 2 | |
| ZM | Zambia | 4 | |
| ZW : | Zimbabwe | 4 | |
| | | | |
| | | | |

Sample table: locations

| ++ | | + | + |
|-------------|-------------------------|-------------|---------------------|
| LOCATION_ID | STREET_ADDRESS | POSTAL_CODE | CITY |
| 1000 | 1297 Via Cola di Rie | 989 | Roma |
| 1100 | 93091 Calle della Testa | 10934 | Venice |
| 1200 | 2017 Shinjuku-ku | 1689 | Tokyo |
| 1300 | 9450 Kamiya-cho | 6823 | Hiroshima |
| 1400 | 2014 Jabberwocky Rd | 26192 | Southlake |
| 1500 | 2011 Interiors Blvd | 99236 | South San Francisco |
| 1600 | 2007 Zagora St | 50090 | South Brunswick |
| (| | | ▶ |

Sample table: employees

| Г | 4 | | | | + | | | _ |
|---|-------------|------------|-----------|-------|--------------------------------|------------|------|---|
| l | EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | | HIRE_DATE | ЈОВ_ | |
| | 100 | Steven | | SKING | 515.123.4567 515.123.4568 | 2003-06-17 | AD_f | F |

Sample table: Departments (Use all 4 tables)

22. From the following tables, write a SQL query to find the department name, full name (first and last name) of the manager and their city. Go to the editor

Sample table: employees

| | • | • | • | • | • | |
|-------------|------------|-----------|----------|--------------|------------|------|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ |
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_F |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_' |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_' |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT_ |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_ |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_ |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT I |
| | | | | | | b |

Sample table: departments

| 1 100 | 1 Indirec | 1 100 | 1,00 | |
|-------|----------------------|-------|------|---|
| 110 | Accounting | 205 | 1700 | _ |
| 120 | Treasury | 0 | 1700 | |
| 130 | Corporate Tax | 0 | 1700 | |
| 140 | Control And Credit | 0 | 1700 | |
| 150 | Shareholder Services | 0 | 1700 | |
| 160 | Benefits | 0 | 1700 | |
| 170 | Manufacturing | 0 | 1700 | |
| 180 | Construction | 0 | 1700 | |
| 190 | Contracting | 0 | 1700 | |
| 200 | Operations | 0 | 1700 | |
| 210 | IT Support | 0 | 1700 | ▼ |

Sample table: locations

| Т | | | |
|---|------------------------------|--------------------|--|
| | LOCATION_ID STREET_ADDRESS | POSTAL_CODE CITY | |
| 1 | 1000 1297 Via Cola di Rie | 989 Roma | |

23. From the following tables, write a SQL query to calculate the number of days worked by employees in a department of ID 80. Return employee ID, job title, number of days worked. Go to the editor

Sample table: jobs

| JOB_ID | JOB_TITLE | MIN_SALARY | MAX_SALARY |
|------------|-------------------------------|------------|------------|
| AD_PRES | President | 20080 | 40000 |
| AD_VP | Administration Vice President | 15000 | 30000 |
| AD_ASST | Administration Assistant | 3000 | 6000 |
| FI_MGR | Finance Manager | 8200 | 16000 |
| FI_ACCOUNT | Accountant | 4200 | 9000 |
| AC_MGR | Accounting Manager | 8200 | 16000 |
| AC_ACCOUNT | Public Accountant | 4200 | 9000 |
| SA_MAN | Sales Manager | 10000 | 20080 |

Sample table: job_history

| + | . | . | . | + |
|-------------|------------|------------|------------|---------------|
| EMPLOYEE_ID | START_DATE | END_DATE | JOB_ID | DEPARTMENT_ID |
| 102 | 2001-01-13 | 2006-07-24 | IT_PROG | 60 |
| 101 | 1997-09-21 | 2001-10-27 | AC_ACCOUNT | 110 |
| 101 | 2001-10-28 | 2005-03-15 | AC_MGR | 110 |
| 201 | 2004-02-17 | 2007-12-19 | MK_REP | 20 |
| 114 | 2006-03-24 | 2007-12-31 | ST_CLERK | 50 |
| 122 | 2007-01-01 | 2007-12-31 | ST_CLERK | 50 |
| 200 | 1995-09-17 | 2001-06-17 | AD_ASST | 90 |

24. From the following tables, write a SQL query to find full name (first and last name), and salary of all employees working in any department in the city of London. Go to the editor

Sample table: departments

| + | + | + | L |
|---------------|------------------|------------|-------------|
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
| 1 40 | | + | 4700 |
| 10 | Administration | 200 | 1700 |
| 20 | Marketing | 201 | 1800 |
| 30 | Purchasing | 114 | 1700 |
| 40 | Human Resources | 203 | 2400 |
| 50 | Shipping | 121 | 1500 |
| 60 | IT | 103 | 1400 |
| 70 | Public Relations | 204 | 2700 |
| 80 | Sales | 145 | 2500 |

Sample table: locations

| | 1000 0002 DOXWOOD | J. | 12W 212 | WITT CCTION OC | |
|---|---------------------|------------------------------|------------|----------------|---|
| | 2000 40-5-12 Laog | ianggen | 190518 | Beijing | _ |
| | 2100 1298 Vilepar | le (E) | 490231 | Bombay | |
| | 2200 12-98 Victor | ia Street | 2901 | Sydney | |
| | 2300 198 Clementi | North | 540198 | Singapore | |
| | 2400 8204 Arthur | St | | London | |
| | 2500 Magdalen Cen | tre, The Oxford Science Park | OX9 9ZB | 0xford | |
| | 2600 9702 Chester | Road | 9629850293 | Stretford | |
| | 2700 Schwanthaler | str. 7031 | 80925 | Munich | |
| | 2800 Rua Frei Can | eca 1360 | 01307-002 | Sao Paulo | |
| | 2900 20 Rue des C | orps-Saints | 1730 | Geneva | • |
| 4 | | | | | - |

Sample table: employees

| 4 | | | | + | | A |
|-------------|--------|-----------|----------|--------------|------------|----------|
| EMPLOYEE_ID | • | LAST_NAME | • | PHONE_NUMBER | HIRE_DATE | - |
| : | Steven | | SKING | 515.123.4567 | 2003-06-17 | |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_\ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_\T |

26. From the following tables, write a SQL query to find the department name, department ID, and number of employees in each department. Go to the editor

Sample table: departments

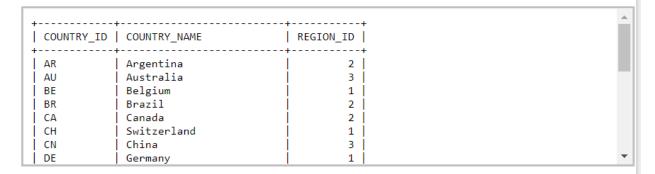
| + | + | + | |
|---------------------------------|-----------------|-----------|--|
| DEPARTMENT_ID DEPARTMENT_NAME | MANAGER_ID LO | CATION_ID | |
| 10 Administration | 200 | 1700 | |
| 20 Marketing | 201 | 1800 | |
| 30 Purchasing | 114 | 1700 | |
| 40 Human Resources | 203 | 2400 | |
| 50 Shipping | 121 | 1500 | |
| 60 IT | 103 | 1400 | |
| 70 Public Relations | 204 | 2700 | |
| 80 Sales | 145 | 2500 | |

Sample table: employees

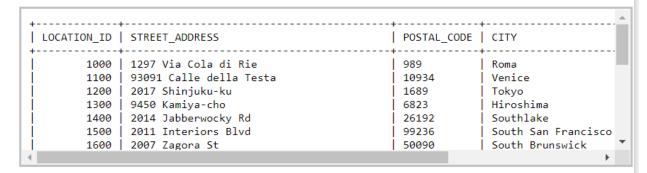
| | | | . | | | |
|-----|-----------------|-----------------|-------------------|--------------------------------|------------|------|
| | FIRST_NAME | | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ |
| | Steven Neena | King Kochhar | SKING NKOCHHAR | 515.123.4567 515.123.4568 | 2003-06-17 | AD_F |
| 102 | | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_\ |

27. From the following tables, write a SQL query to find out the full name (first and last name) of the employee with an ID and the name of the country where he/she is currently employed. Go to the editor

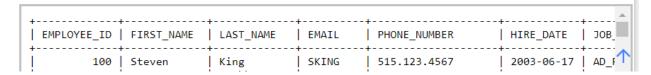
Sample table: countries



Sample table: locations



Sample table: employees



Sample table: Departments

Hint: Use all 4 tables find the result

7. From the following table, write a SQL query to find the employees who earn less than the employee of ID 182. Return first name, last name and salary. Go to the editor

Sample table: employees

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | ЈОВ |
|-------------|------------|-----------|----------|---------------------|------------|-----|
| 100 | Steven | King | SKING | + 515.123.4567 | 2003-06-17 | AD_ |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT |

Sample Output:

| first_name | last_name | salary | |
|------------|-----------|---------|--|
| James | Landry | 2400.00 | |
| Steven | Markle | 2200.00 | |

8. From the following table, write a SQL query to find the employees and their managers. Return the first name of the employee and manager. Go to the editor

Sample table: employees

| EMPLOYEE_ID | . – | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB |
|-------------|-----------|-----------|----------|--------------|------------|-----|
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_ |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT |
| 100 | Valli | Patabalia | VPATADAL | 390.423.4300 | 2000-02-05 | 11 |

Sample Output:

| Employee Name | Manager |
|---------------|---------|
| Neena | Steven |
| Lex | Steven |

11. From the following table, write a SQL query to find the employees and their managers. These managers do not work under any manager. Return the first name of the employee and manager. Go to the editor

Sample table: employees

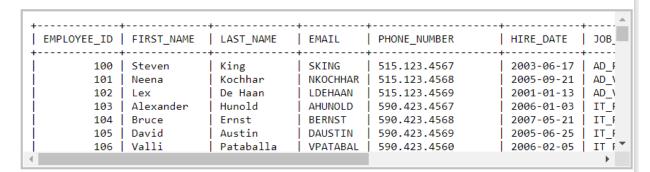
| | + | | | + | + | |
|-------------|------------|-----------|----------|--------------|------------|------|
| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ |
| 100 | Steven | King | SKING | 515.123.4567 | 2003-06-17 | AD_F |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | 2005-09-21 | AD_\ |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | 2001-01-13 | AD_\ |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | 2006-01-03 | IT_F |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | 2007-05-21 | IT_F |
| 105 | David | Austin | DAUSTIN | 590.423.4569 | 2005-06-25 | IT_F |
| 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | 2006-02-05 | IT F |
| | | | | | | - |

Sample Output:

Employee Name Manager Steven Neena Steven

12. From the following tables, write a SQL query to find the employees who work in the same department as the employee with the last name Taylor. Return first name, last name and department ID. Go to the editor

Sample table: employees



Sample Output:

first_name last_name department_id
Matthew Weiss 50
Adam Fripp 50