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

**Sample table:** departments

**Sample table:** employees

Sample Output:

first\_name last\_name department\_id department\_name

Steven King 90 Executive

Neena Kochhar 90 Executive

Lex De Haan 90 Executive

Alexander Hunold 60 IT

.....

select e.first\_name,e.last\_name,d.department\_id,d.department\_name from departments as d inner join employees as e on e.department\_id=d.department\_id order by department\_id,first\_name;

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

**Sample table:** departments

**Sample table:** employees

**Sample table:** locations

Sample Output:

first\_name last\_name department\_name city state\_province

Steven King Executive Seattle Washington

Neena Kochhar Executive Seattle Washington

Lex De Haan Executive Seattle Washington

Alexander Hunold IT Southlake Texas

.....

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

**Sample table:** employees

**Sample table:** job\_grades

Sample Output:

first\_name last\_name salary grade\_level

Shelli Baida 2900.00 A

Sigal Tobias 2800.00 A

Guy Himuro 2600.00 A

Karen Colmenares 2500.00 A

.....

**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.

**Sample table:** departments

**Sample table:** employees

Sample Output:

first\_name last\_name department\_id department\_name

Ellen Abel 80 Sales

Sundar Ande 80 Sales

Amit Banda 80 Sales

Elizabeth Bates 80 Sales

.....

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

**Sample table:** departments

**Sample table:** employees

**Sample table:** locations

Sample Output:

first\_name last\_name department\_name city   state\_province

Mozhe Atkinson Shipping South San Francisco California

Hazel Philtanker Shipping South San Francisco California

Elizabeth Bates Sales OX9 9ZB Oxford

**6.** From the following table, write a SQL query to find all departments including those without any employee. Return first name, last name, department ID, department name.

**Sample table:** departments

**Sample table:** employees

Sample Output:

first\_name  |  last\_name  | department\_id |   department\_name

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

 Steven      | King        |            90 | Executive

 Neena       | Kochhar     |            90 | Executive

 Lex         | De Haan     |            90 | Executive

 Alexander   | Hunold      |            60 | IT

 Bruce       | Ernst       |            60 | IT

 .....

 select e.first\_name,e.last\_name,d.department\_id,d.department\_name from departments as d left join employees as e on d.d

epartment\_id=e.department\_id;

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

**Sample table:** employees

Sample Output:

first\_name last\_name salary

James Landry 2400.00

Steven Markle 2200.00

TJ Olson 2100.00

Ki Gee 2400.00

Hazel Philtanker 2200.00

Assignment2=# select first\_name,last\_name,salary from employees where salary<(select salary from employees where employee\_id=182);

first\_name | last\_name | salary

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

James | Landry | 2400.00

Steven | Markle | 2200.00

TJ | Olson | 2100.00

Ki | Gee | 2400.00

Hazel | Philtanker | 2200.00

(5 rows)

**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.

**Sample table:** employees

Sample Output:

Employee Name Manager

Neena Steven

Lex Steven

Alexander Lex

Bruce Alexander

David Alexander

.....

 select e.first\_name as employee\_name,m.first\_name as manager\_name from employees e join employees m on e. manager\_id=m.

employee\_id;

**9.** From the following tables, write a SQL query to display the department name, city, and state province for each department.

**Sample table:** departments

**Sample table:** locations

Sample Output:

department\_name city state\_province

Administration Seattle Washington

Marketing Toronto Ontario

Purchasing Seattle Washington

Human Resources London

.....

select d.department\_name,l.city,l.state\_province from departments as d join locations as l on d.location\_id=l.location\_id;

**10.** From the following tables, write a SQL query to find those employees who have or not any department. Return first name, last name, department ID, department name.

**Sample table:** departments

**Sample table:** employees

Sample Output:

first\_name last\_name department\_id department\_name

Steven King 90 Executive

Neena Kochhar 90 Executive

Lex De Haan 90 Executive

Alexander Hunold 60 IT

..…

select e.first\_name,e.last\_name,d.department\_id,d.department\_name from employees e left join departments d on e.department\_id=d.department\_id;

**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.

**Sample table:** employees

Sample Output:

Employee Name Manager

Steven

Neena Steven

Lex Steven

Alexander Lex

Bruce Alexander

..…

select e.first\_name as employee\_name,m.first\_name as manager\_name from employees e left join employees m on e.employee\_

id=m.manager\_id;

**12.** From the following tables, write a SQL query to find those employees who work in a department where the employee of last name 'Taylor' works. Return first name, last name and department ID.

**Sample table:** employees

Sample Output:

first\_name last\_name department\_id

Matthew Weiss 50

Adam Fripp 50

Payam Kaufling 50

Shanta Vollman 50

.....

**13.** From the following tables, write a SQL query to find those employees who joined between 1st January 1993 and 31 August 1997. Return job title, department name, employee name, and joining date of the job.

Sample table: job\_history

Sample table: employees

Sample table: jobs

Sample table: departments

Sample Output:

job\_title department\_name employee\_name start\_date

Administration Assistant  Executive Jennifer Whalen 1995-09-17

**14.** From the following tables, write a SQL query to find the difference between maximum salary of the job and salary of the employees. Return job title, employee name, and salary difference.

Sample table: employees

Sample table: jobs

Sample Output:

job\_title employee\_name salary\_difference

President Steven King 16000.00

Administration Vice President   Neena Kochhar 13000.00

Administration Vice President   Lex De Haan 13000.00

Programmer Alexander Hunold 1000.00

.....

**15.** From the following table, write a SQL query to compute the average salary, number of employees received commission in that department. Return department name, average salary and number of employees.

Sample table: employees

Sample table : departments

Sample Output:

department\_name avg count

Shipping 3475.5555555555555556 45

Sales 8955.8823529411764706 34

IT 5760.0000000000000000 5

Administration 4400.0000000000000000 1

.....

**16.** From the following tables, write a SQL query to compute the difference between maximum salary and salary of all the employees who works the department of ID 80. Return job title, employee name and salary difference.

Sample table: employees

Sample table: jobs

Sample Output:

job\_title employee\_name salary\_difference

Sales Manager John Russell 6000.00

Sales Manager Karen Partners 6500.00

Sales Manager Alberto Errazuriz 8000.00

Sales Manager Gerald Cambrault 9000.00

.....

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

Sample table: countries

Sample table: locations

Sample table: departments

Sample Output:

country\_name city department\_name

Canada Toronto Marketing

Germany Munich Public Relations

United Kingdom London Human Resources

United States of America Seattle Payroll

.....

**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.

**Sample table:** departments

Sample table: employees

Sample Output:

department\_name name\_of\_manager

Executive Steven King

IT Alexander Hunold

Finance Nancy Greenberg

Purchasing Den Raphaely

.....

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

**Sample table:** employees

Sample table: jobs

Sample Output:

job\_title avg

Marketing Manager 13000.0000000000000000

Marketing Representative 6000.0000000000000000

Finance Manager 12000.0000000000000000

Shipping Clerk 3215.0000000000000000

.....

**20.** From the following table, write a SQL query to find those employees who earn $12000 and above. Return employee ID, starting date, end date, job ID and department ID.

Sample table: employees

Sample table: job\_history

Sample Output:

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

101 1997-09-21 2001-10-27 AC\_ACCOUNT 110

101 2001-10-28 2005-03-15 AC\_MGR 110

102 2001-01-13 2006-07-24 IT\_PROG 60

201 2004-02-17 2007-12-19 MK\_REP 20

**21.** From the following tables, write a SQL query to find those departments where at least 2 employees work. Group the result set on country name and city. Return country name, city, and number of departments.

Sample table: countries

Sample table: locations

Sample table: employees

Sample table: departments

Sample Output:

country\_name city count

United States of America South San Francisco 1

Canada Toronto 1

United States of America Seattle 4

United States of America Southlake 1

**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.

Sample table: employees

Sample table: departments

Sample table: locations

Sample Output:

department\_name name\_of\_manager city

Executive Steven King Seattle

IT Alexander Hunold Southlake

Finance Nancy Greenberg Seattle

Purchasing Den Raphaely Seattle

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

Sample table: jobs

Sample table: job\_history

**Sample Output:**

employee\_id job\_title days

176 Sales Manager 364

176 Sales Representative 282

**24.** From the following tables, write a SQL query to find full name (first and last name), and salary of those employees who work in any department located in 'London' city.

Sample table: departments

Sample table: locations

Sample table: employees

**Sample Output:**

employee\_name salary

Susan Mavris 6500.00

**25.** From the following tables, write a SQL query to find full name (first and last name), job title, starting and ending date of last jobs of employees who worked without a commission percentage.

Sample table: jobs

Sample table: job\_history

Sample table: employees

Sample Output:

employee\_name job\_title starting\_date ending\_date employee\_id

Neena Kochhar Administration Vice President 2001-10-28 2005-03-15 101

Lex De Haan Administration Vice President 2001-01-13 2006-07-24 102

Den Raphaely Purchasing Manager 2006-03-24 2007-12-31 114

Payam Kaufling Stock Manager 2007-01-01 2007-12-31 122

Jennifer Whalen Administration Assistant 2002-07-01 2006-12-31 200

Michael Hartstein Marketing Manager 2004-02-17 2007-12-19 201

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

Sample table: departments

Sample table: employees

Sample Output:

department\_name no\_of\_employees department\_id

Administration 1 10

Marketing 2 20

Purchasing 6 30

Human Resources 1 40

.....

**27.** From the following tables, write a SQL query to find the full name (first and last name) of the employee with ID and name of the country presently where he/she is working.

Sample table: countries

Sample table: locations

Sample table: employees

Sample table: departments

Sample Output:

employee\_name    |employee\_id|country\_name            |

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Steven King      |        100|United States of America|

Neena Kochhar    |        101|United States of America|

Lex De Haan      |        102|United States of America|

Alexander Hunold |        103|United States of America|

Bruce Ernst      |        104|United States of America|

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