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

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_nam
e 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_nam
```

```
e 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 3475.5555555555556 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

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

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
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
....