Joins assignment

1. From the following tables, write a SQL query to find the first name, last name, department number, and department name for each employee.
Answer :
select e.first_name , e.last_name, d.department_id , d.department_name from employees e join departments d on e.department_id = d.department_id;

2. From the following tables, write a SQL query to find the first name, last name, department, city, and state province for each employee.
Answer:
select e.first_name , e.last_name , d.department_name , l.city , l.state_province from employees e join departments d on e.department_id = d.department_id join locations l on d.location_id = l.location_id;

3. From the following table, write a SQL query to find the first name, last name, salary, and job grade for all employees.
Answer:
 select e.first_name , e.last_name , j.salary , j.grade_level from employees e join job_grade j on e.salary = j.salary ;

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.
>> select e.first_name,e.last_name,d.department_id,d.department_name from employees e join departments d on e.department_id=d.department_id where d.department_id=80 or d.department_id=40;

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.
>>select e.first_name,e.last_name,d.department_name,l.city,l.state_province from employees e join departments d on e.department_id=d.department_id join locations l on d.location_id=l.location_id where first_name like '%z%';

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.
>>select e.first_name,e.last_name,d.department_id,d.department_name from employees e right join departments d on d.department_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.
>>select first_name , last_name,salary from employees where salary < (select salary from employees where employee_id=182);

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.
>> select e.first_name as employee_name , w.first_name as manager from employees e join employees w on e.manager_id=w.employee_id;

9. From the following tables, write a SQL query to display the department name, city, and state province for each department.
>>select d.department_name,l.city,l.state_province from departments d join locations 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.
>>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.
>>select e.first_name as employee_name , w.first_name as manager from employees e left join employees w on e.manager_id=w.employee_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.
>>select first_name,last_name,department_id from employees where department_id in (select department_id from employees where last_name='Taylor');

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.
>> select j.job_title,d.department_name,e.first_name,e.last_name,h.start_date from employees e join job_history h on h.employee_id=e.employee_id join departments d on h.department_id=d.department_id join jobs j on j.job_id = h.job_id where start_date between '1993-01-01' and '1997-08-31';

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.
>>select j.job_title,e.first_name||' '||e.last_name as employee_name, j.max_salary-e.salary as salary_difference from employees e join jobs j on e.job_id=j.job_id;

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.
>>select d.department_name ,count(d.department_name),avg(e.salary) from employees e join departments d using(department_id) group by d.department_name;

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.
>>select j.job_title,e.first_name||' '||e.last_name as employee_name, j.max_salary-e.salary as salary_difference from employees e join jobs j on e.job_id=j.job_id where e.department_id=80;

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

>>select c.country_name as country,l.city,d.department_name from countries c join locations l using(country_id) join departments d using(location_id);