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1. Write a query to display the employee id, employee name (first name and last name) for all employees who earn more than the average salary.

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| SELECT e.employee\_id, e.first\_name, e.last\_name  FROM employees e  WHERE e.salary > (SELECT AVG(salary) FROM employees); |

1. Write a query to display the employee name (first name and last name), employee id, and salary of all employees who report to Payam.

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| SELECT e.first\_name, e.last\_name, e.employee\_id, e.salary  FROM employees e  WHERE e.manager\_id = (SELECT employee\_id FROM employees WHERE first\_name = 'Payam'); |

1. Write a query to display the department number, name (first name and last name), job\_id and department name for all employees in the Finance department.

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| SELECT d.department\_id, e.first\_name, e.last\_name, e.job\_id, d.department\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE d.department\_name = 'Finance'; |

1. Write a query to display all the information of the employees whose salary is within the range of the smallest salary and 2500.

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| SELECT \*  FROM employees  WHERE salary BETWEEN (SELECT MIN(salary) FROM employees) AND 2500; |

1. Write a SQL query to find the first name, last name, department, city, and state province for each employee.

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| SELECT first\_name, 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; |

1. 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.

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| SELECT first\_name, last\_name, e.department\_id, d.department\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE e.department\_id IN (40, 80); |

1. Write a query to display the employee name (first name and last name) and hire date for all employees in the same department as Clara. Exclude Clara.

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| SELECT first\_name, last\_name, hire\_date  FROM employees  WHERE department\_id =  ( SELECT department\_id  FROM employees  WHERE first\_name = 'Clara')  AND first\_name <> 'Clara'; |

1. Write a query to display the employee number, name (first name and last name), and salary for all employees who earn more than the average salary and who work in a department with any employee with a J in their name.

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| SELECT employee\_id, first\_name || ' ' || last\_name as "employee name", salary FROM employees  where salary > (SELECT avg(salary) FROM employees )  and department\_id in ((select department\_id from employees  where first\_name like 'J%')); |

1. 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.

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| SELECT first\_name, 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%'; |

1. Write a SQL query to find all departments, including those without employees. Return first name, last name, department ID, department name.

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| SELECT e.first\_name, e.last\_name, e.department\_id, d.department\_name  FROM employees e  RIGHT JOIN departments d  ON e.department\_id = d.department\_id; |

1. Write a query to display the employee number, name (first name and last name) and job title for all employees whose salary is smaller than any salary of those employees whose job title is MK\_MAN.

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| SELECT e.employee\_id, e.first\_name, e.last\_name, j.job\_title  FROM employees e  JOIN jobs j  ON e.job\_id = j.job\_id  WHERE e.salary < ANY  (SELECT salary  FROM employees  WHERE job\_id = 'MK\_MAN'); |

1. Write a query to display the employee number, name (first name and last name) and job title for all employees whose salary is more than any salary of those employees whose job title is PU\_MAN. Exclude job title PU\_MAN.

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| SELECT e.employee\_id, e.first\_name, e.last\_name, e.job\_id  FROM employees e  WHERE e.salary > ANY  (SELECT salary  FROM employees  WHERE job\_id = 'PU\_MAN')  AND e.job\_id <> 'PU\_MAN'; |

1. Write a query to display the employee number, name (first name and last name) and job title for all employees whose salary is more than any average salary of any department.

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| SELECT e.employee\_id, e.first\_name, e.last\_name, j.job\_title  FROM employees e  JOIN jobs j  ON e.job\_id = j.job\_id  WHERE e.salary > ANY  (SELECT AVG(salary)  FROM employees  GROUP BY department\_id); |

1. Write a query to display the department id and the total salary for those departments which contains at least one employee.

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| SELECT d.department\_id, SUM(e.salary) AS total\_salary  FROM employees e  RIGHT JOIN departments d  ON e.department\_id = d.department\_id  GROUP BY d.department\_id  HAVING COUNT(e.employee\_id) > 0; |

1. Write a SQL query to find the employees who earn less than the employee of ID 182. Return first name, last name and salary.

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| SELECT first\_name, last\_name, salary  FROM employees  WHERE salary < (SELECT salary  FROM employees  WHERE employee\_id = 182); |

1. Write a SQL query to find the employees and their managers. Return the first name of the employee and manager.

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| SELECT e.first\_name AS employee, m.first\_name AS manager  FROM employees e  JOIN employees m  ON e.manager\_id = m.employee\_id; |

1. Write a SQL query to display the department name, city, and state province for each department.

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| SELECT d.department\_name, l.city, l.state\_province  FROM departments d  JOIN locations l  ON d.location\_id = l.location\_id; |

1. Write a query to identify all the employees who earn more than the average and who work in any of the IT departments.

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| SELECT e.first\_name, e.last\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE d.department\_name LIKE 'IT%'  AND e.salary > (SELECT AVG(salary)  FROM employees e2  JOIN departments d2  ON e2.department\_id = d2.department\_id  WHERE d2.department\_name LIKE 'IT%'); |

1. Write a SQL query to find out which employees have or do not have a department. Return first name, last name, department ID, department name.

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| SELECT e.first\_name, e.last\_name, e.department\_id, d.department\_name  FROM employees e  LEFT JOIN departments d  ON e.department\_id = d.department\_id; |

1. Write a SQL query to find the employees and their managers. Those managers do not work under any manager also appear in the list. Return the first name of the employee and manager.

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| SELECT e.first\_name AS employee, m.first\_name AS manager  FROM employees e  LEFT JOIN employees m  ON e.manager\_id = m.employee\_id; |

1. Write a query to display the name (first name and last name) for those employees who gets more salary than the employee whose ID is 163.

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| SELECT first\_name, last\_name  FROM employees  WHERE salary > (SELECT salary  FROM employees  WHERE employee\_id = 163); |

1. Write a query to display the name (first name and last name), salary, department id, job id for those employees who works in the same designation as the employee works whose id is 169.

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| SELECT first\_name, last\_name, salary, department\_id, job\_id  FROM employees  WHERE job\_id = (SELECT job\_id  FROM employees  WHERE employee\_id = 169); |

1. 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.

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| SELECT e.first\_name, e.last\_name, e.department\_id  FROM employees e  JOIN employees e2  ON e.department\_id = e2.department\_id  WHERE e2.last\_name = 'Taylor'; |

1. Write a SQL query to find the department name and the full name (first and last name) of the manager.

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| SELECT d.department\_name, e.first\_name, e.last\_name  FROM employees e  JOIN departments d  ON e.employee\_id = d.manager\_id; |

1. 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.

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| SELECT e.employee\_id, h.start\_date, h.end\_date, e.job\_id, e.department\_id  FROM employees e  JOIN job\_history h  ON e.employee\_id = h.employee\_id  WHERE e.salary >= 12000; |

1. Write a query to display the name (first name and last name), salary, department id for those employees who earn such amount of salary which is the smallest salary of any of the departments.

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| SELECT first\_name, last\_name, salary, department\_id  FROM employees  WHERE salary IN (SELECT MIN(salary) FROM employees  GROUP BY department\_id); |

1. Write a query to display all the information of an employee whose salary and reporting person id is 3000 and 121, respectively.

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| SELECT \*  FROM employees  WHERE salary = 3000 AND manager\_id = 121; |

1. Display the employee name (first name and last name), employee id, and job title for all employees whose department location is Toronto.

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| SELECT e.first\_name, e.last\_name, e.employee\_id, j.job\_title  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  JOIN jobs j  ON e.job\_id = j.job\_id  JOIN locations l  ON d.location\_id = l.location\_id  WHERE l.city = 'Toronto'; |

1. Write a query to display the employee name( first name and last name ) and department for all employees for any existence of those employees whose salary is more than 3700.

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| SELECT first\_name, last\_name, department\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE EXISTS(SELECT \*  FROM employees  WHERE salary > 3700); |

1. Write a query to determine who earns more than employee with the last name 'Russell'.

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| SELECT \* FROM employees  WHERE salary > (SELECT salary  FROM employees  WHERE last\_name = 'Russell'); |

1. Write a query to display the names of employees who don't have a manager.

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| SELECT first\_name, last\_name  FROM employees  WHERE manager\_id IS NULL; |

1. Write a query to display the names of the departments and the number of employees in each department.

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| SELECT d.department\_name, COUNT(e.employee\_id) AS num\_employees  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  GROUP BY d.department\_name; |

1. Write a query to display the last name of employees and the city where they are located.

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| SELECT last\_name, city  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  JOIN locations l  ON d.location\_id = l.location\_id; |

1. Write a query to display the job titles and the average salary of employees for each job title.

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| SELECT job\_id, AVG(salary) AS average\_salary  FROM employees  GROUP BY job\_id; |

1. Write a query to display the employee's name, department name, and the city of the department.

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| SELECT first\_name, last\_name, d.department\_name, l.city  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  JOIN locations l  ON d.location\_id = l.location\_id; |

1. Write a query to display the names of employees who do not have a department assigned to them.

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| --- |
| SELECT first\_name, last\_name  FROM employees  WHERE department\_id IS NULL; |

1. Write a query to display the names of all departments and the number of employees in them, even if there are no employees in the department.

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| SELECT d.department\_name, COUNT(e.employee\_id)  FROM employees e  RIGHT JOIN departments d  ON e.department\_id = d.department\_id  GROUP BY d.department\_name; |

1. Write a query to display the names of employees and the department names, but only include employees whose salary is above 10,000.

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| SELECT first\_name, last\_name, department\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE e.salary > 10000; |

1. Write a query to display department names and the average salary within each department, but only for departments with an average salary above 7000.

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| SELECT d.department\_name, AVG(e.salary) AS avg\_salary  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  GROUP BY d.department\_name  HAVING AVG (e.salary) > 7000; |

1. Write a query to display the names of employees who work in the 'IT' department.

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| SELECT first\_name, last\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE d.department\_name = 'IT'; |

1. Write a query which is looking for the names of all employees whose salary is greater than 50% of their department’s total salary bill.

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| SELECT first\_name, last\_name  FROM employees e  WHERE salary > (SELECT 0.5 \* SUM(salary)  FROM employees  WHERE department\_id = e.department\_id); |

1. Write a query to get the details of employees who are managers.

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| SELECT \*  FROM employees e  JOIN jobs j  ON e.job\_id = j.job\_id  WHERE job\_title like '%Manager'; |

1. Write a query in SQL to display the department code and name for all departments which located in the city London.

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| SELECT d.department\_id, d.department\_name  FROM departments d  JOIN locations l  ON l.location\_id = d.location\_id  WHERE city = 'London'; |

1. Write a query in SQL to display the first and last name, salary, and department ID for all those employees who earn more than the average salary and arrange the list in descending order on salary.

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| SELECT first\_name, last\_name, salary, department\_id  FROM employees  WHERE salary > (SELECT AVG(salary) FROM employees)  ORDER BY salary DESC; |

1. Write a query in SQL to display the first and last name, salary, and department ID for those employees who earn more than the maximum salary of a department which ID is 40.

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| SELECT first\_name, last\_name, salary, department\_id  FROM employees  WHERE salary >  (SELECT MAX(salary)  FROM employees  WHERE department\_id = 40); |

1. Write a query in SQL to display the department name and Id for all departments where they located, that Id is equal to the Id for the location where department number 30 is located.

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| SELECT d.department\_name, d.department\_id, l.city  FROM departments d  JOIN locations l  ON d.location\_id = l.location\_id  JOIN departments d2  ON d2.department\_id = 30  WHERE d.location\_id = d2.location\_id; |

1. Write a query in SQL to display the details of departments managed by Susan.

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| SELECT d.department\_name  FROM departments d  WHERE manager\_id IN (  SELECT employee\_id  FROM employees  WHERE first\_name = 'Susan'); |

1. Write a query to display the department names and the location cities. Only include departments that are located in a country with the country\_id 'US'.

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| SELECT d.department\_name, l.city  FROM departments d  JOIN locations l  ON d.location\_id = l.location\_id  JOIN countries c  ON l.country\_id = c.country\_id  WHERE c.country\_id = 'US'; |

1. Write a query to display the first name and last name of employees along with the name of the department they work in. Only include employees whose last name starts with the letter 'S'.

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| SELECT e.first\_name, e.last\_name, d.department\_name  FROM employees e  JOIN departments d  ON e.department\_id = d.department\_id  WHERE e.last\_name LIKE 'S%'; |

1. Write a query to display the department names and the number of employees in each department. Only include departments with more than 2 employees and order the result by the number of employees in descending order.

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| SELECT d.department\_name, COUNT(e.employee\_id) AS num\_employees  FROM departments d  JOIN employees e ON d.department\_id = e.department\_id  GROUP BY d.department\_name  HAVING COUNT(e.employee\_id) > 2  ORDER BY num\_employees DESC; |