10. Hive Project

Suppose you are working with a company that manages employee information across different departments. The company has two tables in its database: employees and departments.

Task 1: Describe the employees table:

id (INT): Unique identifier for each employee.

name (STRING): Name of the employee.

age (INT): Age of the employee.

department_id (INT): Identifier referencing the department to which the employee belongs.

Task 2: Explain the departments table:

department_id (INT): Unique identifier for each department.

department_name (STRING): Name of the department.

Consider the following scenarios and provide SQL queries to retrieve relevant information:

Task 3: Retrieve the details of all employees along with the names of their respective departments.

```
-- Inner Join Query

SELECT e.id, e.name, e.age, d.department_name

FROM employees e

INNER JOIN departments d ON e.department_id = d.department_id;
```

Task 4: List all employees, including those who haven't been assigned to any department, with the name of their department or 'Unknown' if not assigned.

```
-- Left Join Query

SELECT e.id, e.name, e.age, COALESCE(d.department_name, 'Unknown') AS
department_name

FROM employees e

LEFT JOIN departments d ON e.department_id = d.department_id;
```

Task 5: Display the names of all departments along with the employees working in each department.

```
-- Right Join Query

SELECT COALESCE(e.id, -1) AS id, COALESCE(e.name, 'Unknown') AS name, COALESCE(e.age, -1) AS age, d.department_name

FROM employees e

RIGHT JOIN departments d ON e.department_id = d.department_id;
```