

## 1. Combine Two Tables

Table: Person

| Column Name | Type    |
|-------------|---------|
| PersonId    | int     |
| FirstName   | varchar |
| LastName    | varchar |

PersonId is the primary key column for this table.

Table: Address

| Column Name | Type    |
|-------------|---------|
| AddressId   | int     |
| PersonId    | int     |
| City        | varchar |
| State       | varchar |

AddressId is the primary key column for this table.

Write a SQL query for a report that provides the following information for each person in the Person table, regardless if there is an address for each of those people:

FirstName, LastName, City, State

## 2. Second Highest Salary

Write a SQL query to get the second highest salary from the Employee table.

| Id | Salary |
|----|--------|
| 1  | 100    |
| 2  | 200    |
| 3  | 300    |

For example, given the above Employee table, the query should return 200 as the second highest salary. If there is no second highest salary, then the query should return null.

| SecondHighestSalary |
|---------------------|
| 200                 |

### 3. Employees Earning More Than Their Managers

The Employee table holds all employees including their managers. Every employee has an Id, and there is also a column for the manager Id.

| Id | Name  | Salary | ManagerId |
|----|-------|--------|-----------|
| 1  | Joe   | 70000  | 3         |
| 2  | Henry | 80000  | 4         |
| 3  | Sam   | 60000  | NULL      |
| 4  | Max   | 90000  | NULL      |

Given the Employee table, write a SQL query that finds out employees who earn more than their managers. For the above table, Joe is the only employee who earns more than his manager.

| Employee |
|----------|
| Joe      |

### 4. Duplicate Emails

Write a SQL query to find all duplicate emails in a table named Person.

| Id | Email   |
|----|---------|
| 1  | a@b.com |
| 2  | c@d.com |
| 3  | a@b.com |

For example, your query should return the following for the above table:

| Email   |
|---------|
| a@b.com |

**Note:** All emails are in lowercase.

## 5. Customers Who Never Order

Suppose that a website contains two tables, the Customers table and the Orders table. Write a SQL query to find all customers who never order anything.

Table: Customers.

| +-----+-----+ |       |  |
|---------------|-------|--|
| Id            | Name  |  |
| +-----+-----+ |       |  |
| 1             | Joe   |  |
| 2             | Henry |  |
| 3             | Sam   |  |
| 4             | Max   |  |
| +-----+-----+ |       |  |

Table: Orders.

| +-----+-----+ |            |  |
|---------------|------------|--|
| Id            | CustomerId |  |
| +-----+-----+ |            |  |
| 1             | 3          |  |
| 2             | 1          |  |
| +-----+-----+ |            |  |

Using the above tables as example, return the following:

| +-----+   |  |
|-----------|--|
| Customers |  |
| +-----+   |  |
| Henry     |  |
| Max       |  |
| +-----+   |  |