**SQL JOIN Problem:**

**Table1: Table2:**

|  |  |
| --- | --- |
| **id** | **name** |
| 1 | Alice |
| 2 | Bob |
| 3 | Carol |

|  |  |
| --- | --- |
| **id** | **salary** |
| 1 | 100000 |
| 3 | 120000 |
| 5 | 150000 |

**INNER JOIN:** Returns only the rows where there is a match in both tables.

SELECT Table1.id, Table1.name, Table2.salary

FROM Table1

INNER JOIN Table2 ON Table1.id = Table2.id;

|  |  |  |
| --- | --- | --- |
| **id** | **name** | **salary** |
| 1 | Alice | 100000 |
| 3 | Carol | 120000 |

**LEFT JOIN**: Returns all rows from the left table (**Table1**) and the matched rows from the right table (**Table2**).

SELECT Table1.id, Table1.name, Table2.salary

FROM Table1

LEFT JOIN Table2 ON Table1.id = Table2.id;

|  |  |  |
| --- | --- | --- |
| **id** | **name** | **salary** |
| 1 | Alice | 100000 |
| 2 | Bob | NULL |
| 3 | Carol | 120000 |

**RIGHT JOIN**: Returns all rows from the right table (**Table2**) and the matched rows from the left table (**Table1**).

SELECT Table1.id, Table1.name, Table2.salary

FROM Table1

RIGHT JOIN Table2 ON Table1.id = Table2.id;

|  |  |  |
| --- | --- | --- |
| **id** | **name** | **salary** |
| 1 | Alice | 100000 |
| 3 | Carol | 120000 |
| 5 | NULL | 150000 |

**FULL JOIN**: Returns all rows when there is a match in either the left or right table.

SELECT Table1.id, Table1.name, Table2.salary

FROM Table1

FULL JOIN Table2 ON Table1.id = Table2.id;

|  |  |  |
| --- | --- | --- |
| id | name | salary |
| 1 | Alice | 100000 |
| 2 | Bob | NULL |
| 3 | Carol | 120000 |
| 5 | NULL | 150000 |

**SQL subquery problem:**