|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 1 | 2 | 3 | Null | 5 |
| 1 | 1, 1 | 1, 1 | 1, 2 | 1, 3 | 1, Null | 1, 5 |
| 7 | 7, 1 | 7, 1 | 7, 2 | 7, 3 | 7, Null | 7, 5 |
| 1 | 1, 1 | 1, 1 | 1, 2 | 1, 3 | 1, Null | 1, 5 |
| 6 | 6, 1 | 6, 1 | 6, 2 | 6, 3 | 6, Null | 6, 5 |
| 5 | 5, 1 | 5, 1 | 5, 2 | 5, 3 | 5, Null | 5, 5 |
| Null | Null, 1 | Null, 1 | Null, 2 | Null, 3 | Null, Null | Null, 5 |

Full Cartesian product of t1 and t2 tables, (**not SQLite used below**):

**Create tables:**  
CREATE TABLE t1 (id int);  
CREATE TABLE t2 (id int);

**Fill tables:**

INSERT INTO t1 (id) VALUES   
(1),  
(7),  
(1),  
(6),  
(5),  
(null);

INSERT INTO t2 (id)  
VALUES   
(1),  
(1),  
(2),  
(3),  
(null),  
(5);

--SELECT t1.id, t2.id  
--FROM t1   
--CROSS JOIN t2;

SELECT t1.id, t2.id  
FROM t1   
 **INNER JOIN t2**  
 ON t1.id <> 5;  
-- OR t1.id IS NULL; - тогда NULL из T1 включится в декартово произведение;

SELECT t1.id, t2.id  
FROM t1  
 **LEFT JOIN t2**  
 ON t1.id <> 5;

SELECT t1.id, t2.id  
FROM t1  
 **RIGHT JOIN t2**  
 ON t2.id <> 5;

1. INNER JOIN:

|  |  |
| --- | --- |
| **id** | **id** |
| 1 | 1 |
| 7 | 1 |
| 1 | 1 |
| 6 | 1 |
| 1 | 1 |
| 7 | 1 |
| 1 | 1 |
| 6 | 1 |
| 1 | 2 |
| 7 | 2 |
| 1 | 2 |
| 6 | 2 |
| 1 | 3 |
| 7 | 3 |
| 1 | 3 |
| 6 | 3 |
| 1 | (null) |
| 7 | (null) |
| 1 | (null) |
| 6 | (null) |
| 1 | 5 |
| 7 | 5 |
| 1 | 5 |
| 6 | 5 |

2. LEFT JOIN:

|  |  |
| --- | --- |
| **id** | **id** |
| 1 | 1 |
| 1 | 1 |
| 1 | 2 |
| 1 | 3 |
| 1 | (null) |
| 1 | 5 |
| 7 | 1 |
| 7 | 1 |
| 7 | 2 |
| 7 | 3 |
| 7 | (null) |
| 7 | 5 |
| 1 | 1 |
| 1 | 1 |
| 1 | 2 |
| 1 | 3 |
| 1 | (null) |
| 1 | 5 |
| 6 | 1 |
| 6 | 1 |
| 6 | 2 |
| 6 | 3 |
| 6 | (null) |
| 6 | 5 |
| 5 | (null) |
| (null) | (null) |

2. RIGHT JOIN

|  |  |
| --- | --- |
| **id** | **id** |
| 1 | 1 |
| 7 | 1 |
| 1 | 1 |
| 6 | 1 |
| 5 | 1 |
| (null) | 1 |
| 1 | 1 |
| 7 | 1 |
| 1 | 1 |
| 6 | 1 |
| 5 | 1 |
| (null) | 1 |
| 1 | 2 |
| 7 | 2 |
| 1 | 2 |
| 6 | 2 |
| 5 | 2 |
| (null) | 2 |
| 1 | 3 |
| 7 | 3 |
| 1 | 3 |
| 6 | 3 |
| 5 | 3 |
| (null) | 3 |
| (null) | (null) – Null от правой таблицы |
| (null) | 5 – пятёрка от правой таблицы |