

# T-SQL Table Joins

[www.tsq.info](http://www.tsq.info)

## Table joins

Inner Join  
Left Join  
Right Join  
Self Join

## Table Inner Join

### Inner Join Example:

#### Customers Table

CUSTOMER_ID	CUSTOMER_NAME	CUSTOMER_TYPE
1	CUSTOMER_1	CC
2	CUSTOMER_2	I
3	CUSTOMER_3	SM
4	CUSTOMER_4	CC

#### Contracts Table

CONTRACT_ID	CUSTOMER_ID	AMOUNT
1	1	400
2	2	500
3	3	700
4	1	1000
5	2	1200
6	4	900
7	3	2000
8	2	1500

```

SELECT c.customer_id, c.customer_name, ctr.contract_id, ctr.amount
FROM customers c, contracts ctr
WHERE c.customer_id = ctr.customer_id
AND ctr.amount > 900 ;

```

**Result:**

Customer_Id	Customer_Name	Contract_Id	Amount
1	CUSTOMER_1	4	1000
2	CUSTOMER_2	8	1500
2	CUSTOMER_2	5	1200
3	CUSTOMER_3	7	2000

## Table Left Join

### Left Join Example:

#### Customers Table

CUSTOMER_ID	CUSTOMER_NAME	CONTACT_NAME
1	CUSTOMER_1	NAME_1
2	CUSTOMER_2	NAME_2
3	CUSTOMER_3	NAME_3
4	CUSTOMER_4	NAME_4
5	CUSTOMER_5	
6	CUSTOMER_6	

#### Contracts Table

CONTRACT_ID	CUSTOMER_ID	AMOUNT
1	1	400
2	2	500
3	3	700
4	1	1000
5	2	1200
6	4	900
7	3	2000
8	2	1500

```

SELECT c.customer_id, c.customer_name, ctr.contract_id, ctr.amount
FROM customers c LEFT JOIN contracts ctr
ON c.customer_id = ctr.customer_id
ORDER BY c.customer_id ;

```

**Result:**

Customer_Id	Customer_Name	Contract_Id	Amount
1	CUSTOMER_1	1	400
1	CUSTOMER_1	4	1000
2	CUSTOMER_2	2	500
2	CUSTOMER_2	5	1200
2	CUSTOMER_2	8	1500
3	CUSTOMER_3	3	700
3	CUSTOMER_3	7	2000
4	CUSTOMER_4	6	900
5	CUSTOMER_5		
6	CUSTOMER_6		

## Table Right Join

### Right Join Example:

#### Customers Table

CUSTOMER_ID	CUSTOMER_NAME	USER_NAME
1	CUSTOMER_1	SYSTEM
2	CUSTOMER_2	ELLEN
3	CUSTOMER_3	TOM
4	CUSTOMER_4	STEVE
5	CUSTOMER_5	
6	CUSTOMER_6	

#### Users Table

USER_NAME	DEPARTMENT_NAME
SYSTEM	IT
TOM	SALES
STEVE	SALES
ELLEN	SALES
JOHN	IT

```

SELECT c.customer_id, c.customer_name, c.user_name
FROM users u RIGHT JOIN customers c
ON c.user_name = u.user_name
ORDER BY c.customer_id ;

```

**Result:**

Customer_Id	Customer_Name	User_Name
1	CUSTOMER_1	SYSTEM
2	CUSTOMER_2	ELLEN
3	CUSTOMER_3	TOM
4	CUSTOMER_4	STEVE
5	CUSTOMER_5	
6	CUSTOMER_6	

## Table Self Join

### Self Join Example:

#### Users Table

ID	USER_NAME	DEPARTMENT_NAME	MANAGER_ID
1	SYSTEM	IT	1
2	TOM	SALES	2
3	STEVE	SALES	2
4	ELLEN	SALES	2
5	JOHN	IT	1

```

SELECT u.id, u.user_name, m.id manager_id, m.user_name manager
FROM users u, users m
WHERE u.manager_id = m.id
ORDER BY u.id ;

```

**Result:**

Id	User_Name	Manager_Id	Manager
1	SYSTEM	1	SYSTEM
2	TOM	2	TOM
3	STEVE	2	TOM
4	ELLEN	2	TOM
5	JOHN	1	SYSTEM

## **Resources:**

[www.tsql.info/table-joins/joins.php](http://www.tsql.info/table-joins/joins.php)