

## Hive Joins

A join operation allows you to retrieve data from two or more tables on the basis of some common field(s) between them.

### Types of Joins

1. Equi Join
2. Outer Join
  - LEFT
  - RIGHT
  - OUTER
3. Semi Join
4. Cross Join

### Tables

Brand	
bid	bname
1	A
2	B
3	C

Product			
pid	bid	pname	price
1	1	AA	100
2	1	AB	200
3	2	AC	300
4	2	AD	100
5	NULL	AE	100
6	1	AF	200

## EQUI JOIN / JOIN

```
SELECT COLUMN FROM TABLEA JOIN TABLEB ON (JOIN-  
CONDITION)
```

```
select pid,pname,bname,price from brand join product  
on (brand.bid=product.bid)
```

### Output

pid	pname	bname	price
1	AA	A	100
2	AB	A	200

3	AC	B	300
4	AD	B	100
6	AF	A	200

## LEFT OUTER JOIN

SELECT COLUMN FROM TABLEA LEFT OUTER JOIN TABLEB ON (JOIN-CONDITION)

```
select pid,pname,bname,price from brand left outer join
product on (brand.bid=product.bid)
```

### Output

pid	pname	bname	price
1	AA	A	100
2	AB	A	200
3	AC	B	300
4	AD	B	100
6	AF	A	200
NULL	NULL	C	NULL

## RIGHT OUTER JOIN

SELECT COLUMN FROM TABLEA RIGHT OUTER JOIN TABLEB ON (JOIN-CONDITION)

```
select pid,pname,bname,price from brand right outer join
product on (brand.bid=product.bid)
```

### Output

pid	pname	bname	price
1	AA	A	100
2	AB	A	200
3	AC	B	300
4	AD	B	100

5	AE	NULL	100
6	AF	A	200

## RIGHT OUTER JOIN

SELECT COLUMN FROM TABLEA FULL OUTER JOIN TABLEB ON (JOIN-CONDITION)

```
select pid,pname,bname,price from brand full outer join
product on (brand.bid=product.bid)
```

### Output

pid	pname	bname	price
1	AA	A	100
2	AB	A	200
3	AC	B	300
4	AD	B	100
6	AF	A	200
NULL	NULL	C	NULL
5	AE	NULL	100

## Semi Join

SELECT COLUMN FROM TABLEA LEFT SEMI JOIN TABLEB ON (JOIN-CONDITION)

```
select * from brand left semi join product on
(brand.bid=product.bid)
```

### Output

bid	bname
1	A
2	B

## CROSS JOIN

```
SELECT COLUMN FROM TABLEA CROSS  
JOIN TABLEB
```

```
select bname,pname from brand  
cross join product
```

bname	pname
A	AA
A	AB
A	AC
A	AD
A	AE
A	AF
B	AA
B	AB
B	AC
B	AD
B	AE
B	AF
C	AA
C	AB
C	AC
C	AD
C	AE
C	AF