


JOINS

- Inner join / Natural Join
- Left join / left outer Join
- Right join / Right outer Join
- Cross join / Cartesian Product



Full

```
create database join_demo_feb_hex_24;  
use join_demo_feb_hex_24;
```

```
create table product(id int primary key auto_increment,name varchar(255) NOT NULL,  
price double,vendor_id int);  
describe product;
```

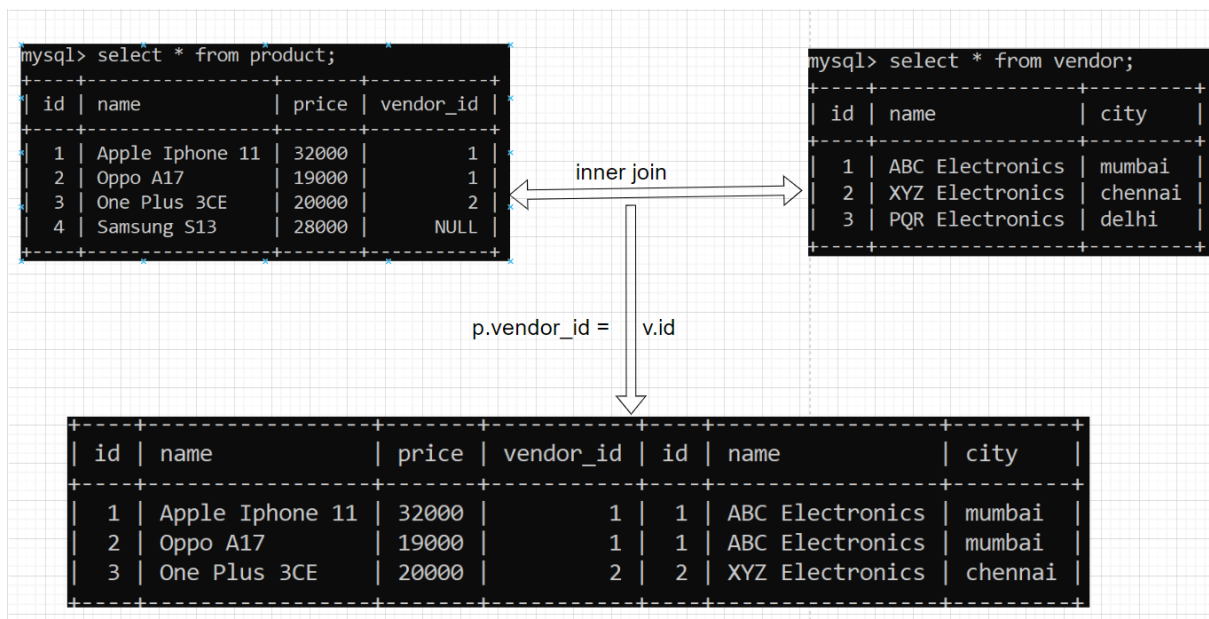
```
create table vendor(id int primary key auto_increment,name varchar(255),  
city varchar(255));  
describe vendor;
```

```
insert into vendor(name,city) values
('ABC Electronics', 'mumbai'),#1
('XYZ Electronics','chennai'),#2
('PQR Electronics', 'delhi');#3
```

```
select * from vendor;
```

```
insert into product(name,price,vendor_id) values
('Apple Iphone 11', 32000, 1),
('Oppo A17', 19000, 1),
('One Plus 3CE', 20000, 2);
```

```
select * from product;
```



```
mysql> select *
```

```
-> from product p JOIN vendor v ON p.vendor_id=v.id;
```

Q. Display all products that are sold on Platform along with vendor info

```
mysql> select * from product;
```

id	name	price	vendor_id
1	Apple Iphone 11	32000	1
2	Oppo A17	19000	1
3	One Plus 3CE	20000	2
4	Samsung S13	28000	NULL

```
mysql> select * from vendor;
```

id	name	city
1	ABC Electronics	mumbai
2	XYZ Electronics	chennai
3	PQR Electronics	delhi

left join

p.vendor_id = v.id

id	name	price	vendor_id	id	name	city
1	Apple Iphone 11	32000	1	1	ABC Electronics	mumbai
2	Oppo A17	19000	1	1	ABC Electronics	mumbai
3	One Plus 3CE	20000	2	2	XYZ Electronics	chennai
4	Samsung S13	28000	NULL	NULL	NULL	NULL

```
mysql> select * from product;
```

id	name	price	vendor_id
1	Apple Iphone 11	32000	1
2	Oppo A17	19000	1
3	One Plus 3CE	20000	2
4	Samsung S13	28000	NULL

```
mysql> select * from vendor;
```

id	name	city
1	ABC Electronics	mumbai
2	XYZ Electronics	chennai
3	PQR Electronics	delhi

right join

p.vendor_id = v.id

id	name	price	vendor_id	id	name	city
1	Apple Iphone 11	32000	1	1	ABC Electronics	mumbai
2	Oppo A17	19000	1	1	ABC Electronics	mumbai
3	One Plus 3CE	20000	2	2	XYZ Electronics	chennai
NULL	NULL	NULL	NULL	3	PQR Electronics	delhi

```
mysql> select * from product;
```

id	name	price	vendor_id
1	Apple Iphone 11	32000	1
2	Oppo A17	19000	1
3	One Plus 3CE	20000	2
4	Samsung S13	28000	NULL

```
mysql> select * from vendor;
```

id	name	city
1	ABC Electronics	mumbai
2	XYZ Electronics	chennai
3	PQR Electronics	delhi

full join = Left UNION Right

p.vendor_id = v.id

id	name	price	vendor_id	id	name	city
1	Apple Iphone 11	32000	1	1	ABC Electronics	mumbai
2	Oppo A17	19000	1	1	ABC Electronics	mumbai
3	One Plus 3CE	20000	2	2	XYZ Electronics	chennai
4	Samsung S13	28000	NULL	NULL	NULL	NULL
NULL	NULL	NULL	NULL	3	PQR Electronics	delhi

```
mysql> select *
-> from product p LEFT JOIN vendor v ON p.vendor_id=v.id
-> UNION
-> select *
-> from product p RIGHT JOIN vendor v ON p.vendor_id=v.id
-> ;
```

CROSS JOIN

```
mysql> select *
-> from product, vendor;
```