

Learn to architect your database

By following proper database relationship



1. One to One relationship

A Phone can have a single battery and a Battery can also be put in a single phone at a time.

This way between Phone and Battery table there is a One to One relationship

See the tables



Phone

Model	Battery ID
SM-25	021
SM-30	022

Battery

Battery ID	Power
021	5000mAh
022	6000mAh

2. One to Many relationship

A customer can have multiple orders.

So We will have **Customer** and **Orders** tables. And in both the tables there will be a column called **customerId**.

Thus, we can get orders of an customer-

```
SELECT * FROM ORDERS WHERE  
customerId=1;
```

Customer

customerId (Primary)	customerName
1	Rohan
2	Rajesh

Orders

orderId	customerId (Foreign)	order amt
101	1	2000
102	1	5000

3. Many to Many relationship

A product can have multiple offers, at the same time an offer can be available on multiple products.

So we will have three tables -
Product, Offer, ProductAndOffer

Product

productId (Primary)	productName
1	Samsung s5
2	Samsung s6

Offer

offerId (Primary)	Offer Desc
21	1000 Off
22	2000 Off

ProductAndOffer

productId (Foreign)	offerId (Foreign)
1	21
1	22
2	21

ProductAndOffer table will contain the Primary Keys of both Product And Offer tables and this table is called **Junction Table**

For **ProductAndOffer** table **productId** and **offerId** together works as Primary Key.

Means the combination of two columns creates a primary key for the table and such type of Primary Key is called **Composite Primary key**.

So in this example, productId (1) and offerId(21) is a Primary key. And in the same way, productId(1) and offerId(22) is another primary key and one more...

So here in this example, **ProductAndOffer** table shows that the product with id 1 has two available offers (Offer - 21,22) and product with id 2 has one offer (Offer - 21).

This way **one product many offers** and **one offers many products**.

Thanks for reading...