

Normalization

First Normal Form

Each table must contain primary key.

There is no repeating groups

Each column must contain one atomic value

Before 1NF:

conductor

aid	cname	ph-no
1	xyz	999999999
2.	abc	888 88888 7777777

After 1NF

aid	cname	phno
1.	xyz	999999
2.	abc	888888
2.	abc	777777

Second Normal Form:

It is 1NF

Every key attribute is fully dependent on key attribute. There is no partial dependency.

Before 2NF:

Ticket

t-id	t-date	P-id	P-name
1	abc 13	512	Sanju
2	xyz 14	513	Siri

After 2NF:

Ticket

t-id	t-date	P-id
1	abc 13	512
2	abc 14	513

Passenger

P-id	P-name
512	Sanju
513	Siri

Third Normal Form:

It is 2NF.

There is no transitive dependency.

Before 3NF:

conductor

cid	cname	caddress	locality	place
1	Aakash	BPM	Vij	Secu
2	Akshay	TGP	Hyd	Gunt

After 3NF:

cid	cname	c.address
1	Aakash	BPM
2	Akshay	TGP

c.address	locality	place
BPM	Vij	Secu
TGP	Hyd	Gunt