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M T W T F S

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Automobile Spare-parts Mgmt.

Normalization of Customer table

customer
c-id
c-name
c-mail
c-add
c-phone
c-dob
c-age

1NF:

in above table attribute "c_phone" can contain multiple values, so

customer_phone	customer_details
<u>c-id</u>	<u>c-id</u>
c-phone	c-name
	c-mail
	c-add
	c-dob
	c-age

Now "customer_phone" can contain "c_phone" in sepezate cells as -

example -	c-id	c-phone
	101	9988775432
	101	8434214021
	102	9324356782
	102	7345358267

2NF : In "customer_details" table

Candidate key :
c_id, c_mail

Non prime attributes :

c_name

c_add

c_dob

c_age

Functional Dependencies :

c_id, c_mail \rightarrow c_name (Candidate Key)

c_id, c_mail \rightarrow c_add (Candidate Key)

c_id, c_mail \rightarrow c_dob (Candidate Key)

c_dob \rightarrow c_age (Transitive D.)

No change - (No partial Dependency)

customer_phone		customer_Details
c-id	\rightarrow	<u>c-id</u>
c-phone		<u>c-mail</u>
		c-add
		c-dob
		c-age

3NF :

In "customer_phone" Table

$c_id \rightarrow c_phone$ (Primary key)

In "customer_details" Table

$c_id, c_mail \rightarrow c_name$ (candidate k)

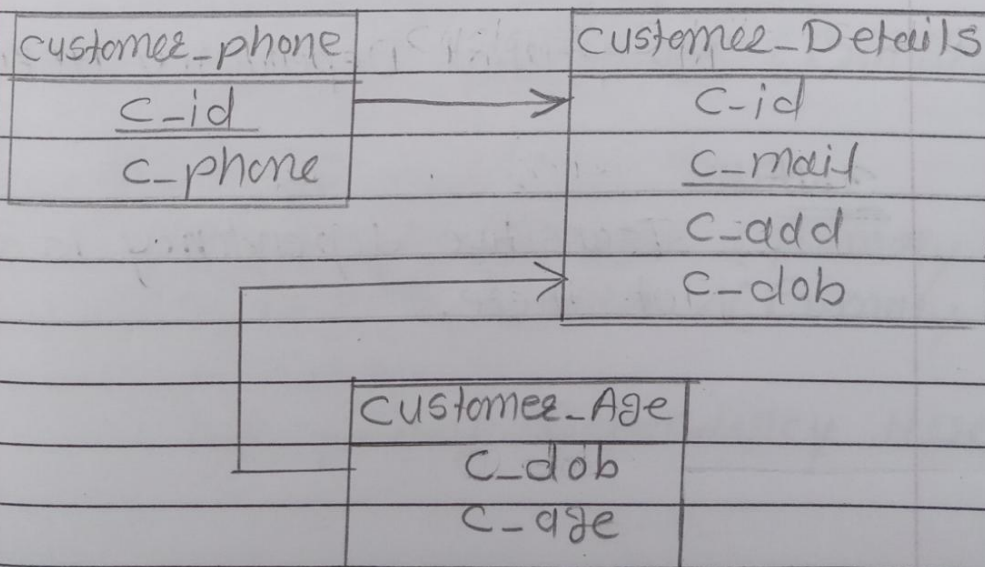
$c_id, c_mail \rightarrow c_add$ (candidate key)

$c_id, c_mail \rightarrow c_dob$ (candidate k.)

$c_dob \rightarrow c_age$ (Transitive D)

Here c_age is dependent on c_dob
& c_dob is dependent on candidate
key c_id, c_mail .

So,



Normalization of "Spare-parts" Table.

Spare-parts
<u>sp-id</u>
rate
quantity

1NF: Here is No multi-valued attribute in this table.

So No change.

2NF:

FD's -

sp-id \rightarrow rate (Primary key)

sp-id \rightarrow quantity (Primary key)

No partial Dependency Here.

3NF:

Transitive dependency is also Not there.

Normalization of "Distributor" Table

Distributor
<u>D-id</u>
D-name
D-add
D-phone

1NF: c_phone can have multiple values, so

Distributor_phone	Distributor_det
<u>D-id</u>	<u>D-id</u>
D-phone	D-name
	D-add

2NF: FD'S -

In Distributor_phone Table

$D_id \longrightarrow D_phone$ (Primary key)

In Distributor_det Table

$D_id \longrightarrow D_name$ (Primary key)

$D_id \longrightarrow D_add$ (Primary key)

NO partial Dependency Here

3NF: Transitive Dependency is also not there in Distributer Table.

- * Similar for "Staff" Table for "s_phone" attribute.
- * No need to Normalize order Table (because there is no multivalued attribute, no partial, Transitive Dependency)

O_no \rightarrow O_Date