NORMALIZATION

**

Customer(customer_id, first_name, last_name, address, password, email,phone_no)
Customer_id => first_name
Customer_id => last_name
Customer_id => address
Customer_id => password
Customer_id => email
Customer_id => phone_no

The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key.
Customer_id is the key.

**

Restaurant(Restaurant_id, Restaurant_name, Restaurant_address, Restaurant_password , Restaurant_phone _no)
Restaurant_id => Restaurant_name
Restaurant_id => Restaurant_address
Restaurant_id => Restaurant_password
Restaurant_id => Restaurant_phone _no

The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key.
Restaurant_id is the key.

**

Ratings((customer_id,restaurant_id,rating)
customer_id,restaurant_id => rating
The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key
Customer_id,restaurant_id is the key
****

Admin(Admin_id,admin_name,admin_password)
Admin_id=>admin_name
Admin_id=> Admin_password

The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key
Admin_id is the key.

**
Category(Category_id,Category_name)
Category_id => Category_name

The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key
Category_id is the key.
**
Menu_item(item_code,item_name,price)
Item_code=>item_name
Item_code=>price

The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key
Item_code is the key
**
Order_details(Order_id,Order_time,Order_amount,Order_status)
Order_id => Order_time
Order_id => Order_amount
Order_id => Order_amount

The above table is in
1NF as it does not contain any multivalued attribute.
2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
BCNF as it is in 3NF and every determinant is a primary key
Order_id is the key.

**

Order(order_id,item_code,quantity)

{Order_id,item_code}=>quantity

The above table is in

1NF as it does not contain any multivalued attribute.

2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key

3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key

BCNF as it is in 3NF and every determinant is a primary key

Order_id,item_code is the composite primary key.

**

Payment_details(payment_id,payment_mode,payment_time)

payment_id=>payment_mode

payment_id=>payment_time

The above table is in

1NF as it does not contain any multivalued attribute.

2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key

3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key

BCNF as it is in 3NF and every determinant is a primary key

payment_id is the key.

**

Delivery_details(delivery_id,delivery_address,delivery_status)

delivery_id=>delivery_address

delivery_id=>delivery_status

The above table is in

1NF as it does not contain any multivalued attribute.

2NF as it is in 1NF and every non-primary key attribute is fully dependent on the primary key

3NF as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key

BCNF as it is in 3NF and every determinant is a primary key

delivery_id is the key.