


COOK

This entity is not in 1NF because of multivalued cook id, menu code, columns and undefined primary key.

Converting to 1NF  Remove multivalued columns, identify the primary key:

<u>Cook Id</u>	First_name	Last_name	Menu_code	Hire_date (dd-mm-yy)	City
01	Jagdeep	Singh	1	23-05-18	Brampton
02	Navneet	Kaur	2	25-05-18	Toronto
03	Marcel	Khan	3	25-05-18	Montreal
04	Raman	Gill	4	24-07-18	Toronto
05	Deepak	Sharma	5	13-02-18	Mississauga

Now, it is in 1NF because there are no repeating groups, no multivalued columns and primary key is also defined.

It is already in 2NF because there are no partial dependencies.

Also, it is in 3NF because the table is in 2NF and it does not contain non-key columns that determines the value of non-key columns.

<u>Menu code</u>	<i>Menu_name</i>
1	Indian
2	Chinese
3	Italian
4	Thai
5	Mexican

Menu

This entity is already in 1NF as there are no multivalued columns and primary key is defined.

Also, the entity is in 2NF as there are no partial dependencies.

Also, it is in 3NF because the table is in 2NF and it does not contain non-key columns that determines the value of non-key columns.

<u>Dish_code</u>	Dish_name	price	<i>Menu_code</i>
1	Butter chicken	15	1
2	Karahi paneer	12	1
3	Saag	10	2
4	Daal makhani	12	3
5	Noodles	18	4

6	Manchurian	7	5
7	Chicken burger	2	5
8	Veg wrap	7	3
9	Grilled cheese Melt	5	4
10	pizza	25	2

Dishes

This entity is already in 1NF as there are no multivalued columns and primary key is defined.

Also, the entity is in 2NF as there are no partial dependencies.

Also, it is in 3NF because the table is in 2NF and it does not contain non-key columns that determines the value of non-key columns.

<u>Table number</u>	Number_of_seats	<i>Client_id</i>
1	4	1
2	6	2
3	2	3
4	2	4
5	3	5

Table

This entity is already in 1NF as there are no multivalued columns and primary key is defined.


Also, the entity is in 2NF as there are no partial dependencies.

Also, it is in 3NF because the table is in 2NF and it does not contain non-key columns that determines the value of non-key columns.

Client_id	First_name	Last_name	Email	Menu_code	Menu_name
1	Jashanpreet	Singh	jashan@gmail.com	1 5	Indian Mexican
2	Abhishek	Sharma	abhi@gmail.com	2	Chinese
3	Komalpreet	Singh	komalpreet@gmail.com	3	Italian
4	Shahnawaz	Singh	sehaj@gmail.com	5 2	Mexican Chinese
5	Karan	Gill	preet@gmail.com	4	Thai

Client

This entity is not in 1NF because of multivalued Menu_name, Menu_code, columns and undefined primary key.

Converting to 1NF  Remove multivalued columns, identify the primary key:

Client_id	First_name	Last_name	Email	Menu_code	Menu_name
1	Jashanpreet	Singh	jashan@gmail.com	1	Indian
1	Jashanpreet	Singh	jashan@gmail.com	5	Mexican
2	Abhishek	Sharma	abhi@gmail.com	2	Chinese
3	Komalpreet	Singh	komalpreet@gmail.com	3	Italian
4	Shahnawaz	Singh	sehaj@gmail.com	5	Mexican
4	Shahnawaz	Singh	sehaj@gmail.com	2	Chinese
5	Karan	Gill	preet@gmail.com	4	Thai

Now, it is in 1NF because there are no repeating groups, no multivalued columns and primary key is also defined.

Converting to 2NF  Eliminate partial dependencies by creating

Client_id	First_name	Last_name	Email
1	Jashanpreet	Singh	jashan@gmail.com
1	Jashanpreet	Singh	jashan@gmail.com
2	Abhishek	Sharma	abhi@gmail.com
3	Komalpreet	Singh	komalpreet@gmail.com
4	Shahnawaz	Singh	sehaj@gmail.com
4	Shahnawaz	Singh	sehaj@gmail.com
5	Karanpreet	Gill	preet@gmail.com

Menu

Menu_code	Menu_name
1	Indian
2	Mexican
3	Chinese
4	Italian
5	Mexican

Clients_menu

<u>Client_id</u>	<u>Menu_code</u>
1	1
1	5

2	2
3	3
4	5
4	2
5	4

The tables are now in 2NF because they are in 1NF and there are no partial dependencies.

This is in 3NF because the table is in 2NF and it does not contain non-key columns that determines the value of non-key columns.

<u>Client_id</u>	First_name	Last_name	Email	Manager_id	Manager_name	Hire_date
1	Jashanpreet	Singh	jashan@gmail.com	4	Amanpreet Singh	2018-02-10
2	Abhishek	Sharma	abhi@gmail.com	7	Deepak Gill	2014-10-11
3	Komalpreet	Singh	komalpreet@gmail.com	10	Rajan Verma	2012-01-01
4	Shahnawaz	Singh	sehaj@gmail.com	2	Amritpal	2013-05-09
5	Karanpreet	Gill	preet@gmail.com	6	Cherry	2016-12-12

This entity is already in 1NF as there are no multivalued columns and primary key is defined.

Converting to 2NF  Eliminate partial dependencies by creating

Client_id	First_name	Last_name	Email
1	Jashanpreet	Singh	jashan@gmail.com
1	Jashanpreet	Singh	jashan@gmail.com
2	Abhishek	Sharma	abhi@gmail.com
3	Komalpreet	Singh	komalpreet@gmail.com
4	Shahnawaz	Singh	sehaj@gmail.com
4	Shahnawaz	Singh	sehaj@gmail.com
5	Karanpreet	Gill	preet@gmail.com

Manager

Manager_id	Manager_name	Hire_Date
1	Kermit Singh	10-01-19
2	Kert Singh	20-01-19
3	Aermit Jingh	07-01-19
4	ermit ngh	03-01-19
5	Pirmit Singh	11-01-19
6	Kekit Jingh	13-01-19
7	Kegt Singh	15-01-19
8	Kerft Singh	05-01-19
9	Kbmit kingh	25-01-19
10	Kbmit kingh	25-01-19

Clients_Manager

The tables are now in 2NF because they are in 1NF and there are no partial dependencies.

This is in 3NF because the table is in 2NF and it does not contain non-key columns that determines the value of non-key columns.

