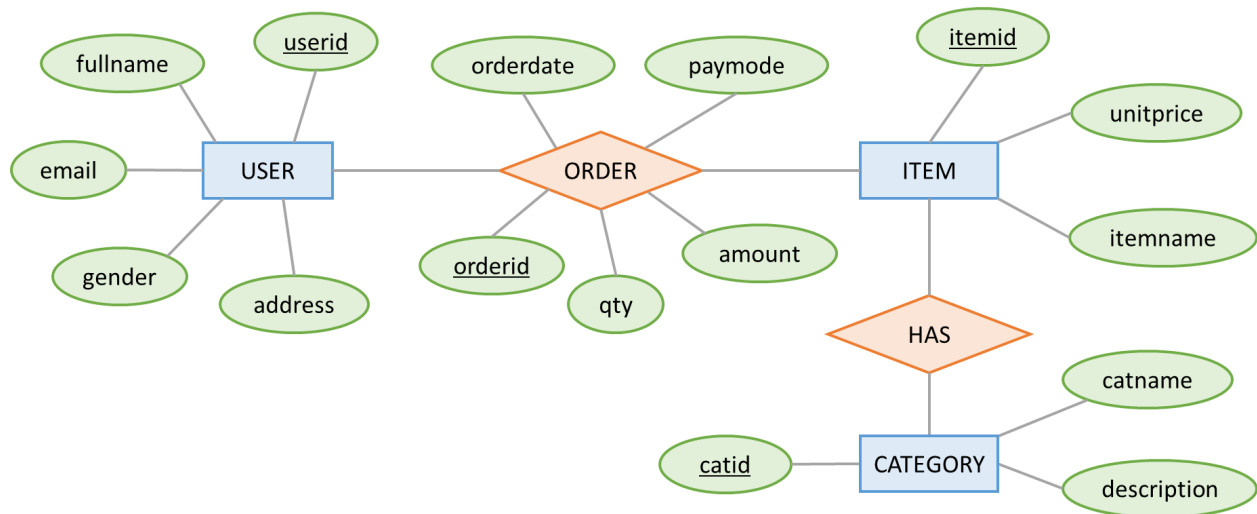# DBMS Lab Assignment 2

PROBLEM STATEMENTS

1. Create the tables as described below:

Tablename: **USERDATA**

Column Name	Datatype	Size	Attributes
userid	varchar2	6	Primary Key
email	varchar2	20	Unique
fullname	varchar2	18	Not null
gender	char	1	
address	varchar2	35	

Tablename: **ITEMCATEGORY**

Column Name	Datatype	Size	Attributes
catid	char	3	Primary Key
catname	varchar2	15	
description	varchar2	30	

Tablename: **ITEM**

Column Name	Datatype	Size	Attributes
itemid	char	3	Primary Key
itemtype	char	5	Foreign Key (catid from ITEMCATEGORY)
itemname	varchar2	50	Unique
unitprice	number	6,2	Not null

Tablename: **ORDERLIST**

Column Name	Datatype	Size	Attributes
orderid	Auto number		Primary Key
userid	varchar2	6	
itemid	char	3	
qty	number	2	Not null
amount	number	8,2	Not null
orderdate	date		
paymode	char	4	

2. Make the following changes in the tables created above:
   a. Rename the USERDATA table to ALLUSER.
   b. For the ITEMCATEGORY table, rename the *description* column to *descr* and change the field size to 50, and add NOT NULL constraint to *catname*.
   c. For the ORDERLIST table, add foreign key constraints to *userid* and *itemid* taking references from ALLUSER table and ITEM table respectively.
   d. For the ALLUSER table, remove column *gender* and add *phone* of type char with size 10 and UNIQUE constraint.

3. The system administrator wants to add the following data. Write queries to perform the following:

   a. Data for table **ITEMCATEGORY**

catid	catname	descr
BVG	Beverages	Can be taken at any time.
FTF	Fast Food	Can be taken as breakfast or tiffin.
MNC	Main Course	Can be taken as lunch or dinner.
DRT	Desert	Usually taken after main course.

   b. The DB admin realizes some problem and changed the field size to 3 for *itemtype* in the ITEM table. Write a query to perform the same. And insert the following data:

   Data for table **ITEM**

itemid	itemtype	itemname	unitprice
F01	FTF	Paneer Tikka Wrap Combo	130.75
M01	MNC	Rajma Chawal Bowl	189.25
M02	MNC	Hyderabadi Chicken Biryani	220.50
B01	BVG	Mint Chaas	89.00
M03	MNC	Kadai Paneer-Thali	209.75
F02	FTF	Chicken Tikka Sandwich	139.25
M04	MNC	Chana Masala Pulao	179.25
F03	FTF	Chilli Corn 65	179.25
B02	BVG	Masala Lemonade	89.00

4. Some users made registration with their data. Write queries to insert their data into the ALLUSER table:

   a. Dorothy Jones registered with –
      i.   userid – doro77
      ii. email – dorothy77@gmail.com

      iii.   address – 4D/1, Fern Road, Kolkata

      iv.   phone – 4578895623

  b. Evelyn Simon registered with –

      i.   userid – eve80

      ii.   email – evelyn@gmail.com

      iii.   phone – 7788778877

  c. Harry Thompson registered with –

      i.   userid – harry

      ii.   email – harry_t@yahoo.com

      iii.   address – 14, BB Ganguly St., Kolkata

  d. Hasan Raja registered with –

      i.   userid – raja.h

      ii.   email – rhasan@hotmail.com

      iii.   address – AE34, Laketown, Kolkata

      iv.   phone – 3222548522

  e. James Andy registered with –

      i.   userid – james5

      ii.   email – james5@rediff.com

  f. Later, Evelyn Simon updated her address as – "Flat 207, Block K, New Town".

  g. James Andy updated his address and phone as "255, Jessore Road, Barasat" and "2200560087" respectively.

5. The DB admin feels that the *amount* attribute is derived and thus dropped it from ORDERLIST table.

  a. Write a query to perform the above.

  b. The users made some orders, write queries to insert the following data:

Data for table **ORDERLIST**

userid	itemid	qty	orderdate	paymode
doro77	F02	3	2022-Jan-02	UPI
harry	M01	1	2022-Jan-04	NETB
harry	B02	1	2022-Jan-04	NETB
doro77	F02	3	2022-Jan-08	UPI

doro77	B02	2	2022-Jan-08	UPI
raja.h	M02	3	2022-Jan-18	UPI
eve80	M01	1	2022-Jan-21	NETB
eve80	B02	1	2022-Jan-21	NETB
doro77	M04	2	2022-Feb-03	CRDC
james5	M03	1	2022-Feb-03	NETB
james5	B02	2	2022-Feb-03	NETB
doro77	M02	2	2022-Feb-07	UPI
doro77	B01	4	2022-Feb-09	UPI
james5	F02	2	2022-Feb-12	DEBT
eve80	M04	10	2022-Feb-20	CRDC
eve80	B01	6	2022-Feb-20	CRDC
eve80	F02	2	2022-Feb-20	CRDC
harry	M03	3	2022-Feb-23	NETB
raja.h	F02	4	2022-Feb-26	DEBT
harry	B02	2	2022-Feb-28	NETB

6. Perform the following set of queries on the tables created above:
   a. List the name and price of items sorted according to price from larger to smaller.
   b. List the maximum, minimum and average price in each item category.
   c. List all the items which start with 'C'.
   d. List the category id, category name and item name for all items.
   e. List the category name, item name and unit price for all items sorted by unit price.
   f. List the details of the item having the second highest price.
   g. List the item name and its description for all items sorted alphabetically as the item name.
   h. List all the category id from ITEMCATEGORY table with their corresponding item name and price.
   i. List the details of categories for which no item is present.
   j. List category name, item name and item price for all beverages.

k. List category name, item name and item price for all main course foods sorted according to their price from largest to smallest.

l. List the item name, username and orderdate for main course foods sorted by item name in alphabetical order.

7. Perform another set of following queries on those tables:

a. List name and address for all users from 'Kolkata'.

b. List all the gmail users' email id and name.

c. List all the orders made by 'Evelyn Simon'.

d. Find all the unsold item name and category.

e. List the itemid, itemnane and total quantity sold sorted according to the total quantity sold in descending order.

f. List the itemid, itemnane and total amount sold sorted according to the total amount sold in descending order.

g. List all the payment modes and total number of qty ordered through them in descending order.

h. List the itemid, itemname and total amount spent for each item by Dorothy Jones.

i. List the userid, name and email for users who bought main course items in January, 2022.

j. List the userid, name and email for users who used netbanking for purchase.

k. List the userid, user name, item name and quantity for all orders having qty value at least 3, sorted by userid in ascending order and then quantity in descending order.