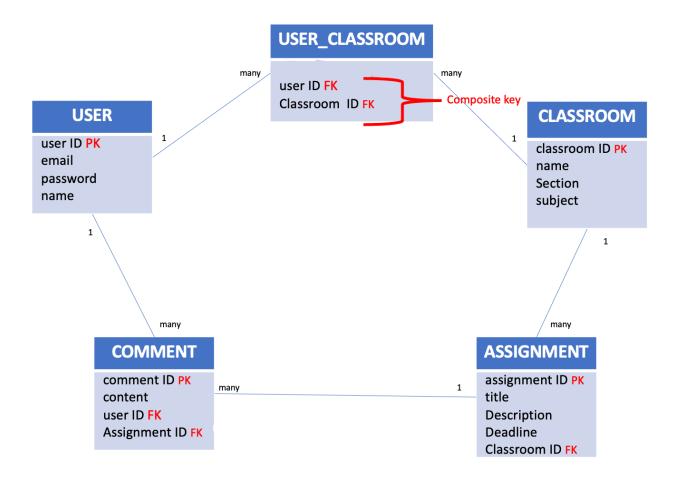
C2-S5-PRACTICE

NOTE: check your **THEORY slides** to answer those questions!

EXERCISE 1 – GOOGLE CLASSROOM DATABASE



Here is the Entity Relation Diagram of the Google Classroom Database you designed in Chapter 1. You are now going to put it in MySQL!

Q1 – Write a statement to create the google classroom database, and to tell MySQL you are now working with it.

```
MariaDB [(none)]> create database google_classroom;
Query OK, 1 row affected (0.002 sec)

MariaDB [(none)]> use google_classroom;
Database changed
MariaDB [google_classroom]>
```

Q2 – For each table (USER, USER_CLASSROOM, CLASSROOM, ASSIGNMENT, COMMENT), complete the following arrays, by specifying for each attribute:

- o The attribute type (SQL type) and size
- o Can be null or not?
- o Is a primary key or foreign keys?

- USER TABLE

Attribute name	Type / size	Can be	Key
		Null?	
userID	INT	NO	PRIMARY KEY
email	VARCHAR(200)	NO	
password	VARCHAR(200)	NO	
name	VARCHAR(200)	NO	

USER_CLASSROOM TABLE

Attribute name	Type / size	Null?	Key
userID	INT	NO	FOREIGN KEY
classroomID	INT	NO	FOREIGN KEY

CLASSROOM TABLE

Attribute name	Type / size	Null?	Key
classroomID	INT	NO	PRIMARY KEY
name	VARCHAR(200)	NO	
section	VARCHAR(200)	NO	
subject	VARCHAR(200)	NO	

ASSIGNMENT TABLE

Attribute name	Type / size	Null?	Key
signmentID	INT	NO	PRIMARY KEY
title	VARCHAR(200)	NO	
Description	VARCHAR(400)	YES	
Deadline	DATE	NO	
classroomID	INT	NO	FOREIGN KEY

COMMENT TABLE

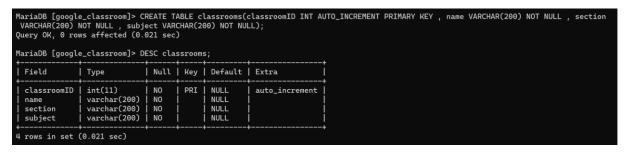
Attribute name	Type / size	Null?	Key
commentID	INT	NO	PRIMARY KEY
content	VARCHAR(400)	NO	
userID	INT	NO	FOREIGN KEY
assignmentID	INT	NO	FOREIGN KEY

Q3 – Write the SQL statement to create the 5 tables with appropriate properties.

<u>WARNING</u>: Create the tables in the right order to respect the Foreign Key constraints.

Users table:

Classrooms table:



User classrooms table:

Assignments table:

```
MariaDB [google_classroom]> CREATE TABLE assignments(assignmentID INT AUTO_INCREMENT , title VARCHAR(200) NOT NULL , Description VARC HAR(400), Deadline DATE NOT NULL , classroomID INT NOT NULL , PRIMARY KEY( assignmentID) , FOREIGN KEY ( classroomID ) REFERENCES classroomS(classroomID));
Query OK, 0 rows affected (0.053 sec)
MariaDB [google_classroom]> DESC assigments;
ERROR 1146 (42SO2): Table 'google_classroom.assigments' doesn't exist
MariaDB [google_classroom]> DESC assignments;
  Field
                                                        | Null | Key | Default | Extra
                               Type
    assignmentID |
                                int(11)
                                                                                    NULL
                                                                                                       auto_increment
   title
Description
                               varchar(200)
varchar(400)
                                                           NO
YES
                                                                                    NULL
NULL
   Deadline
classroomID
                               date
int(11)
                                                           NO
NO
                                                                                    NULL
                                                                         MUL
 5 rows in set (0.025 sec)
```

Comments table:

```
MariaDB [google_classroom] > CREATE TABLE comments( commentID INT AUTO_INCREMENT , content VARCHAR(400) NOT NULL , userID INT NOT NULL , assignmentID INT NOT NULL , PRIMARY KEY ( commentID ) , FOREIGN KEY ( userID ) REFERENCES users( userID ) , FOREIGN KEY ( assignmentID ) REFERENCES assignments( assignmentID ));
Query OK, 0 rows affected (0.038 sec)
 MariaDB [google_classroom]> DESC comments;
 | Field
                                                     | Null | Key | Default | Extra
                          | Type
                              int(11)
varchar(400)
int(11)
                                                                              NULL
   commentID
                                                       NO
                                                                                                auto_increment
   content
userID
                                                       NO
NO
                                                                              NULL
NULL
   assignmentID |
                             int(11)
                                                        NO
                                                                    MUL
                                                                              NULL
 4 rows in set (0.021 sec)
```

Q4 – Write statements to insert at least 3 records in each table.

Users table:

```
Records: 3 Duplicates: 0 Warnings: 0
MariaDB [google_classroom]> SELECT * FROM users;
 userID | email
                      password
                               name
     1 |
        rotha@gmail.com
                               ROtha SIN
                      roth@1233
     2
        dara@gmail.com
                      dara$1122
                                Dara MENG
                      ta@#$111
     3 | nita@gmail.com
                               Nita HENG
3 rows in set (0.001 sec)
```

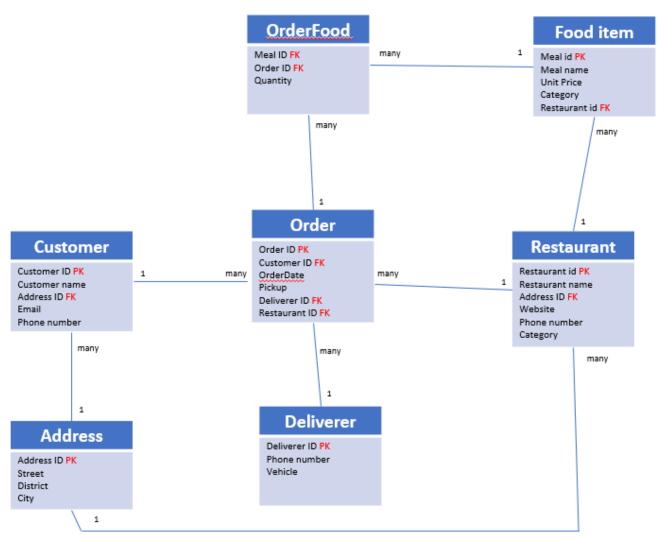
Classrooms table:

```
MariaDB [google_classroom]> INSERT INTO classrooms( name , section , subject ) VALUES
-> ( 'WepA' , 'Practice1' , 'Database'),
-> ( 'WepB' , 'Activiey1' , 'PHP' ),
-> ( 'WepC' , 'Homework' , 'English' );
Query OK, 3 rows affected (0.006 sec)
Records: 3 Duplicates: 0 Warnings: 0
MariaDB [google_classroom]> SELECT * FROM classrooms;
   classroomID | name | section
                                                        subject
                    1 |
                          WepA
                                      Practice1 |
                                                           Database
                    2
                           WepB
                                      Activiey1
                                                           PHP
                    3 |
                           WepC
                                      Homework
                                                           English
3 rows in set (0.001 sec)
```

User classrooms table:

Assignment table:

Comments table:



Here is the Entity Relation Diagram of the Foodpanda Database you designed in Chapter 1. You are now going to put it in MySQL!

Q1 – Write a statement to create the Foodpanda database, and to tell MySQL you are now working with it.

```
MariaDB [(none)]> create database Foodpanda;
Query OK, 1 row affected (0.004 sec)

MariaDB [(none)]> use foodpanda;
Database changed
MariaDB [foodpanda]>
```

Q2 – For each table of the database, complete the following array, by specifying for each attribute:

- o The attribute type (SQL type) and size
- o Can be null or not?
- o Is a primary key or foreign keys?

1. Address Table

Attribute name	Type / size	Null?	Key
addressID	INT	NO	PRIMARY KEY
Street	VARCHAR(200)	NO	
District	VARCHAR(100)	NO	
city	VARCHAR(100)	NO	

2. Customers Table

Attribute name	Type / size	Null?	Key
costumerID	INT	NO	PRIMARY KEY
costumerName	VARCHAR(100)	NO	
addressID	INT	NO	FOREIGN KEY
Email	VARCHAR(100)	NO	
phoneNumber	INT	NO	

3. Deliverers Table:

Attribute name	Type / size	Null?	Key
delivererID	INT	NO	PRIMARY KEY
phoneNumber	INT	NO	
vehicle	VARCHAR(20)	YES	

4. Restaurants Table:

Attribute name	Type / size	Null?	Key
restaurantID	INT	NO	PRIMARY KEY
restaurantName	VARCHAR(100)	NO	
addressID	INT	NO	FOREIGN KEY
website	VARCHAR(200)	YES	
phoneNumber	INT	NO	
category	VARCHAR(100)	NO	

5. Food_items Table:

Attribute name	Type / size	Null?	Key
mealID	INT	NO	PRIMARY KEU
mealName	VARCHAR(100)	NO	
unitPrice	INT	NO	
Category	VARCHAR(100)	NO	
rastaurantID	INT	NO	FOREIGN KEY

6. Orders Table:

Attribute name	Type / size	Null?	Key
orderID	INT	NO	PRIMARY KEY
costumerID	INT	NO	FOREIGN KEY
orderDate	DATE	NO	
pickUp	VARCHAR(200)	NO	
delivererID	INT	NO	FOREIGN KEY
restaurantID	INT	NO	FOREIGN KEY

7. Order_food Table:

Attribute name	Type / size	Null?	Key
mealID	INT	NO	FOREIGN KEY
orderID	INT	NO	FOREIGN KEY
quantity	INT	NO	

Q3 – Write the SQL statement to create the tables with appropriate properties.

<u>WARNING:</u> Create the tables in the right order to respect the Foreign Key constraints.

• Address table:

```
MariaDB [foodpanda]> CREATE TABLE address ( addressID INT AUTO_INCREMENT PRIMARY KEY , street VARCHAR(200) NOT NULL , district VARCHAR(100) NOT NULL , city VARCHAR(100) NOT NULL);
Query OK, 0 rows affected (0.014 sec)
MariaDB [foodpanda]> DESC address;
                                    | Null | Key | Default | Extra
              | Type
  addressID | int(11)
                                                          NULL
                                                  PRI
                                                                        auto_increment
                   varchar(200) |
varchar(100) |
  street
district
                                       NO
NO
                                                          NULL
                                                          NULL
NULL
                   varchar(100) | NO
varchar(100) | NO
  city
4 rows in set (0.010 sec)
```

Costumers table:

```
MariaDB [foodpanda]> CREATE TABLE costumers( costumerID INT AUTO_INCREMENT , costumerName VARCHAR(100) NOT NULL , addressID INT NOT N
ULL , email VARCHAR(100) NOT NULL , phoneNumber INT NOT NULL , PRIMARY KEY ( costumerID ) , FOREIGN KEY ( addressID ) REFERENCES addr
ess ( addressID ));
Query OK, 0 rows affected (0.036 sec)
MariaDB [foodpanda]> DESC costumers;
 Field
                          | Type
                                                    | Null | Key | Default | Extra
                             int(11)
varchar(100)
int(11)
varchar(100)
                                                      NO
NO
                                                                             NULL
NULL
   costumerID
                                                                   PRI
   costumerName
                                                      NO
NO
NO
   addressID
email
                                                                             NULL
   phoneNumber
                             int(11)
                                                                              NULL
   rows in set (0.014 sec)
```

Deliverers table:

• Restaurants table:

Field	MariaDB [foodpanda]> CREATE TABLE restaurants (restaurantID INT AUTO_INCREMENT , restaurantName VARCHAR(100) NOT NULL , addressID IN T , website VARCHAR(200) , phoneNumber INT NOT NULL , category VARCHAR(100) NOT NULL , PRIMARY KEY (restaurantID) , FOREIGN KEY (a ddressID) REFERENCES address (addressID)); Query OK, 0 rows affected (0.034 sec) MariaDB [foodpanda]> DESC restaurants;													
restaurantName	Field	: _					į							
·	restaurantName addressID website phoneNumber	varchar(100) int(11) varchar(200) int(11)	NO YES YES NO		NULL NULL NULL NULL	auto_increment - - - -								

Fooditems table:

```
MariaDB [foodpanda]> CREATE TABLE fooditems ( mealID INT AUTO_INCREMENT , mealName VARCHAR(100) NOT NULL , unitPrice INT NOT NULL , c ategory VARCHAR(100) NOT NULL , restaurantID INT , PRIMARY KEY ( mealID ) , FOREIGN KEY ( restaurantID ) REFERENCES restaurants ( restaurantID ));
Query OK, 0 rows affected (0.033 sec)
MariaDB [foodpanda]> DESC fooditems;
                           .
| Туре
  Field
                                                    | Null | Key | Default | Extra
                             int(11)
   mealID
                                                       NO
                                                                   PRI I
                                                                              NULL
                                                                                               auto increment
                            int(11)
varchar(100)
int(11)
varchar(100)
int(11)
                                                                             NULL
NULL
   unitPrice
                                                       NO
   category |
restaurantID |
                                                                              NULL
NULL
                                                      YES
   rows in set (0.012 sec)
```

Orders table:

```
MariaDB [foodpanda]> CREATE TABLE orders ( orderID INT AUTO_INCREMENT , costumerID INT NOT NULL , orderDate DATE NOT NULL , pickup VA RCHAR(200) NOT NULL , delivererID INT NOT NULL , restaurantID INT NOT NULL , PRIMARY KEY ( orderID ) , FOREIGN KEY ( costumerID ) REFERENCES costumers( costumerID ) , FOREIGN KEY ( delivererID ) REFERENCES delivererS ( delivererID ) , FOREIGN KEY ( restaurantID ) REFERENCES restaurants( restaurantID ));
Query OK, 0 rows affected (0.037 sec)
 MariaDB [foodpanda]> DESC orders;
 |
| Field
                               Type
                                                              | Null | Key | Default | Extra
    orderID
                                   int(11)
                                                                                            NULL
                                                                                PRI
                                                                                                                auto_increment
    costumerID
orderDate
                                  int(11)
date
                                                                 NO
NO
                                                                                MUL
                                                                                           NULL
                                                                                           NULL
NULL
                                  varchar(200)
int(11)
    pickup
delivererID
                                                                 NO
                                                                               MUL
MUL
                                                                                           NULL
    restaurantID | int(11)
                                                                 NO
 6 rows in set (0.012 sec)
```

Order_foods table:

Q4 – Write statements to insert between 2 and 4 records in each table.

Address table:

Costumers table:

Deliverers table:

```
MariaDB [foodpanda]> INSERT INTO deliverers ( phoneNumber , vehicle ) VALUES
    -> ('0713456222' , 'Honda Dream 2020'),
-> ('0717171798' , 'Scopy 2023'),
-> ('0967892222' , 'Honda Dream 2023');
Query OK, 3 rows affected (0.005 sec)
Records: 3 Duplicates: 0 Warnings: 0
MariaDB [foodpanda]> SELECT * FROM deliverers;
                     phoneNumber | vehicle
| delivererID |
                        713456222
                                        Honda Dream 2020
                1
                                        Scopy 2023
                        717171798
                2
                3 I
                        967892222
                                        Honda Dream 2023
3 rows in set (0.000 sec)
```

Restaurants table:

Fooditems table:

```
.
MariaDB [foodpanda]> INSERT INTO fooditems ( mealName , unitPrice , category , restaurantID ) VALUES
-> ( 'Kary soup' , '2' , 'soup' , 1 ),
-> ( 'Khmer noodle ' , '1' , 'noodle' , 1 ),
-> ( 'Matsubuta Sushi' , '20' , 'fish' , 2 )
Query OK, 3 rows affected (0.005 sec)
Records: 3 Duplicates: 0 Warnings: 0
                                                              , 2);
MariaDB [foodpanda] > SELECT * FROM fooditems;
  mealID | mealName
                                        | unitPrice |
                                                           category |
                                                                            restaurantID
                                                      2 |
               Karv soup
                                                            soup
               Khmer noodle
                                                            noodle
                                                                                             1
          3 l
               Matsubuta Sushi |
                                                     20 I
                                                            fish
                                                                                            2 I
3 rows in set (0.000 sec)
```

> Orders table:

order_foods table: