MYSQL Assignment

Create below tables and add required primary key, foreign key and constraints in it.

User,

Product,

Order (with User ID, Order status and expected delivery date),

Order detail (order id, product Ids).

// First create database called DB_Asignment .

 CREATE DATABASE DB_Assignment;

// Create User table with columns user id, first name, last name, gender, address, mobile number, email, country, state, city.

CREATE TABLE DB_Assignment.Users (

   `UserID` INT AUTO_INCREMENT,

   `FirstName` VARCHAR(100) NOT NULL,

   `LastName` VARCHAR(100) NOT NULL,

   `Gender` VARCHAR(20) NOT NULL,

   `Address` VARCHAR(400) NOT NULL,

   `MobileNumber` NUMERIC NOT NULL UNIQUE,

   `Email` VARCHAR(100) NOT NULL UNIQUE,

   `Country` VARCHAR(50) NOT NULL,

   `State` VARCHAR(50) NOT NULL,

   `City` VARCHAR(50) NOT NULL,

   PRIMARY KEY (`UserID`)

);

// Create product table with columns product id, product name, description, categories, image URL, weight, stock, price.

```
CREATE TABLE DB_Assignment.Products (
    `ProductID` INT AUTO_INCREMENT PRIMARY KEY,
    `ProductName` VARCHAR(100) NOT NULL,
    `ProductDescription` VARCHAR(400) NOT NULL,
    `ProductCategories` VARCHAR(50) NOT NULL,
    `ProductImageURL` VARCHAR(400) NOT NULL,
    `PoductWeightInKG` FLOAT(10) NOT NULL,
    `ProductStock` INT NOT NULL,
    `ProductPrice` INT NOT NULL
);
```

// Create order table with columns order id, user id, order date, order status, expected delivery Date.

```
CREATE TABLE DB_Assignment.Orders (
    `OrderID` INT AUTO_INCREMENT,
    `UserID` INT NOT NULL,
    `OrderDate` DATE NOT NULL,
    `OrderStatus` VARCHAR(20) NOT NULL,
    `OrderExpectedDeliveryDate` VARCHAR(20) NOT NULL,
    PRIMARY KEY (`OrderID`),
    FOREIGN KEY (`UserID`)
        REFERENCES Users(`UserID`)
);
```

// Create order details table with columns order id, product id, quantity.

```sql
CREATE TABLE DB_Assignment.Order_details (
    `OrderID` INT NOT NULL,
    `ProductID` INT NOT NULL,
    `ProductQuantity` INT NOT NULL,
    FOREIGN KEY (`OrderID`)
        REFERENCES Orders (`OrderID`),
    FOREIGN KEY (`ProductID`)
        REFERENCES Products (`ProductID`)
);
```

1. Fetch all the User order list and include atleast following details in that.

- Customer name

- Product names

- Order Date

- Expected delivery date (in days, i.e., within X days)

QUERIES : -

```sql
(1) SELECT
        O.OrderID, U.FirstName, U.LastName, P.ProductName, O.OrderDate, O.OrderStatus,
        O.OrderexpectedDeliveryDate
    FROM Users U, Orders O, Products P, Order_details OD
    WHERE
        O.UserID = U.UserID AND O.OrderID = OD.OrderID AND OD.ProductID = P.ProductID
    ORDER BY
        O.OrderID, O.OrderDate;
```

(2) SELECT

O.OrderID, U.FirstName, U.LastName, P.ProductName, O.OrderDate, O.OrderStatus,

O.OrderexpectedDeliveryDate

FROM Orders O

INNER JOIN Users U ON O.UserID = U.UserID

INNER JOIN Order_details OD ON O.OrderID = OD.OrderID

INNER JOIN Products P ON OD.ProductID = P.ProductID;

OrderID	FirstName	LastName	ProductName	OrderDate	OrderStatus	OrderexpectedDeliveryDate
1	Kelby	MacCulloch	Lobster - Tail, 3 - 4 Oz	2022-08-19	Ready for dispatch	within 3 days
1	Kelby	MacCulloch	Juice - Lime	2022-08-19	Ready for dispatch	within 3 days
2	Orion	Edworthie	Juice - Lime	2022-10-17	Pending	within 4 days
2	Orion	Edworthie	Lettuce - Frisee	2022-10-17	Pending	within 4 days
2	Orion	Edworthie	Wine - Balbach Riverside	2022-10-17	Pending	within 4 days
3	Mervin	Gianinotti	Fond - Neutral	2022-12-03	In process	within 5 days
3	Mervin	Gianinotti	Oil - Cooking Spray	2022-12-03	In process	within 5 days
4	Bail	Skilling	Mountain Dew	2022-09-10	In process	within 4 days
5	Bunny	Ghioni	Tomatoes - Grape	2022-04-05	Delivered	within 1 day
5	Bunny	Ghioni	Bread - Rye	2022-04-05	Delivered	within 1 day
6	Hobey	MacCourt	Sauce - Demi Glace	2022-04-20	Pending	within 4 days
6	Hobey	MacCourt	Blouse / Shirt / Sweater	2022-04-20	Pending	within 4 days
6	Hobey	MacCourt	Beer - Heinekin	2022-04-20	Pending	within 4 days
6	Hobey	MacCourt	Fond - Neutral	2022-04-20	Pending	within 4 days
8	Elden	Reuven	Wine - Red, Black Opal …	2022-04-11	In process	within 3 days
9	Sally	Greiswood	Crab - Soft Shell	2022-09-24	Delivered	within 3 days
9	Sally	Greiswood	Table Cloth 144x90 White	2022-09-24	Delivered	within 3 days
10	Gilburt	Simm	Fish - Soup Base, Bouillon	2022-10-28	In process	within 4 days
10	Gilburt	Simm	Cod - Salted, Boneless	2022-10-28	In process	within 4 days
10	Gilburt	Simm	Juice - Lime	2022-10-28	In process	within 4 days
11	Diego	Nell	Dc - Frozen Momji	2023-03-14	In process	within 3 days
11	Diego	Nell	Beans - Fine	2023-03-14	In process	within 3 days
12	Kelby	MacCulloch	Pastry - Carrot Muffin - Mini	2022-11-08	Dispatched	within 2 days
12	Kelby	MacCulloch	Veal - Inside Round / Top…	2022-11-08	Dispatched	within 2 days
12	Kelby	MacCulloch	Sauce - Demi Glace	2022-11-08	Dispatched	within 2 days
12	Kelby	MacCulloch	Fond - Neutral	2022-11-08	Dispatched	within 2 days
13	Diego	Nell	Beef - Short Ribs	2022-03-17	Dispatched	within 5 days
13	Diego	Nell	Curry Powder Madras	2022-03-17	Dispatched	within 5 days
16	Sally	Greiswood	Beer - Heinekin	2022-06-09	In process	within 2 days
16	Sally	Greiswood	Salmon Steak - Cohoe 8 …	2022-06-09	In process	within 2 days
16	Sally	Greiswood	Rosemary - Primerba, Pa…	2022-06-09	In process	within 2 days
17	Hersh	Laroux	Spice - Peppercorn Mela…	2022-12-08	Pending	within 5 days
17	Hersh	Laroux	Wine - White, Ej Gallo	2022-12-08	Pending	within 5 days
18	Bunny	Ghioni	Mountain Dew	2022-12-14	Dispatched	within 3 days
18	Bunny	Ghioni	Ice Cream Bar - Hagen …	2022-12-14	Dispatched	within 3 days
18	Bunny	Ghioni	Zucchini - Green	2022-12-14	Dispatched	within 3 days

2. Create summary report which provide information about

- All undelivered Orders

SELECT * FROM Orders WHERE OrderStatus != 'Delivered';

OrderID	UserID	OrderDate	OrderStatus	OrderExpectedDeliveryDate
1	1	2022-08-19	Ready for dispatch	within 3 days
2	4	2022-10-17	Pending	within 4 days
3	12	2022-12-03	In process	within 5 days
4	6	2022-09-10	In process	within 4 days
6	11	2022-04-20	Pending	within 4 days
7	15	2023-02-24	In process	within 5 days
8	10	2022-04-11	In process	within 3 days
10	16	2022-10-28	In process	within 4 days
11	3	2023-03-14	In process	within 3 days
12	1	2022-11-08	Dispatched	within 2 days
13	3	2022-03-17	Dispatched	within 5 days
14	3	2022-06-26	Pending	within 5 days
15	2	2022-04-05	Ready for dispatch	within 3 days
16	8	2022-06-09	In process	within 2 days
17	2	2022-12-08	Pending	within 5 days
18	9	2022-12-14	Dispatched	within 3 days
19	16	2022-11-11	Dispatched	within 2 days
20	9	2022-10-11	Ready for dispatch	within 3 days
21	8	2022-09-15	Ready for dispatch	within 1 day
22	11	2022-07-12	Dispatched	within 4 days
23	14	2023-02-02	Pending	within 3 days
24	5	2022-07-17	Pending	within 2 days
26	6	2022-11-04	Dispatched	within 2 days
27	4	2022-03-21	Ready for dispatch	within 4 days
28	7	2022-06-13	Pending	within 2 days
29	2	2022-06-21	In process	within 1 day
30	13	2022-04-11	Ready for dispatch	within 4 days
31	14	2022-05-04	Ready for dispatch	within 5 days
33	17	2022-07-08	Ready for dispatch	within 1 day
34	2	2022-07-26	Ready for dispatch	within 1 day
35	6	2022-11-11	Pending	within 2 days
36	15	2023-01-22	Dispatched	within 1 day
38	16	2022-10-21	Ready for dispatch	within 2 days
39	17	2022-12-01	Ready for dispatch	within 5 days
40	7	2022-11-15	Dispatched	within 1 day
41	12	2022-06-14	Dispatched	within 2 days

- 5 Most recent orders

SELECT * FROM Orders ORDER BY OrderDate DESC LIMIT 5;

#	OrderID	UserID	OrderDate	OrderStatus	OrderExpectedDeliveryDate
1	11	3	2023-03-14	In process	within 3 days
2	7	15	2023-02-24	In process	within 5 days
3	23	14	2023-02-02	Pending	within 3 days
4	36	15	2023-01-22	Dispatched	within 1 day
5	18	9	2022-12-14	Dispatched	within 3 days
*	NULL	NULL	NULL	NULL	NULL

- Top 5 active users (Users having most number of orders)

SELECT

U.UserID, CONCAT(U.FirstName, ' ', U.LastName) AS UserName, COUNT(O.UserID) AS

OrderCount

FROM Orders O

INNER JOIN Users U ON O.UserID = U.UserID

GROUP BY O.UserID

ORDER BY OrderCount DESC LIMIT 5;

#	UserID	UserName	OrderCount
1	2	Hersh Laroux	5
2	9	Bunny Ghioni	4
3	3	Diego Nell	4
4	15	Claire Iacomelli	4
5	10	Elden Reuven	4

- Inactive users (Users who hasn't done any order)

```
SELECT

U.UserID, CONCAT(U.FirstName, ' ', U.LastName) AS UserName,

"User doesn't order anything" AS Orders

FROM Users U

LEFT JOIN Orders O ON U.UserID = O.UserID

WHERE O.UserID IS NULL;
```

#	UserID	UserName	Orders
1	18	Pammie Broske	User doesn't order anything
2	19	Maury Lewtey	User doesn't order anything
3	20	Waite Teissier	User doesn't order anything

- Top 5 Most purchased products

```
SELECT

P.ProductID, P.ProductName, P.ProductDescription, SUM(O.ProductQuantity) AS

ProductOrdered

FROM Order_details O

INNER JOIN Products P ON O.ProductID=P.ProductID

GROUP BY O.ProductID

ORDER BY ProductOrdered DESC LIMIT 5;
```

#	ProductID	ProductName	ProductDescription	ProductOrdered
1	10	Cod - Salted, Boneless	Curabitur convallis.	33
2	50	White Fish - Filets	Proin interdum mauris non ligula pe...	30
3	15	Ice Cream Bar - Hagen ...	Cras pellentesque volutpat dui.	29
4	28	Wine - Balbach Riverside	Duis bibendum.	29
5	4	Mountain Dew	Morbi non quam nec dui luctus rutr...	28

- Most expensive and most chepest orders.

(1) SELECT

O.OrderID, O.UserID, O.OrderStatus, O.OrderexpectedDeliveryDate, Total

FROM Orders O

INNER JOIN

((

SELECT OD.OrderID, SUM(OD.ProductQuantity*P.ProductPrice) as Total

FROM Order_details OD

INNER JOIN Products P on OD.ProductID=P.ProductID

GROUP BY OD.OrderID

ORDER BY Total DESC LIMIT 1

) UNION (

SELECT OD.OrderID, SUM(OD.ProductQuantity*P.ProductPrice) as Total

FROM Order_details OD

INNER JOIN Products P on OD.ProductID=P.ProductID

GROUP BY OD.OrderID

ORDER BY Total ASC LIMIT 1

))

AS TEMP ON O.OrderID=TEMP.OrderID;

#	OrderID	UserID	OrderStatus	OrderexpectedDeliveryDat	Total
1	44	3	Pending	within 5 days	28709
2	4	6	In process	within 4 days	543

(2) (SELECT

O.OrderID, O.UserID, O.OrderStatus, O.OrderexpectedDeliveryDate,

SUM(OD.ProductQuantity*P.ProductPrice) AS Total

FROM Orders O

INNER JOIN Order_details OD ON O.OrderID=OD.OrderID

INNER JOIN Products P ON OD.ProductID = P.ProductID

GROUP BY OD.OrderID

ORDER BY Total DESC LIMIT 1

) UNION (

SELECT O.OrderID, O.UserID, O.OrderStatus, O.OrderexpectedDeliveryDate,

SUM(OD.ProductQuantity*P.ProductPrice) AS Total

FROM Orders O

INNER JOIN Order_details OD ON O.OrderID=OD.OrderID

INNER JOIN Products P ON OD.ProductID = P.ProductID

GROUP BY OD.OrderID

ORDER BY Total ASC LIMIT 1);