

## MYSQL LMS Practical

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- **Create below tables and also 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)**

### **QUERY:**

After creating schema named user\_orders:

➤ **Creating tables:**

**1. Creating users table:**

```
CREATE TABLE user
(user_id INT NOT NULL,
first_name VARCHAR(45),
last_name VARCHAR(45),
email VARCHAR(45),
address VARCHAR(45),
contact_no VARCHAR(45),
gender VARCHAR(1),
PRIMARY KEY(user_id));
```

**2. Creating products table:**

```
CREATE TABLE products
(product_id INT NOT NULL,
product_name VARCHAR(45),
price INT,
PRIMARY KEY(product_id));
```

**3. Creating orders table:**

```
CREATE TABLE orders
(order_id INT NOT NULL,
user_id INT,
product_id INT,
order_placed_date DATE,
order_status VARCHAR(45),
expected_delivery_date DATE,
PRIMARY KEY(order_id));
```

**4. Creating order\_details table:**

```
CREATE TABLE order_details
(order_id INT,
product_id INT);
```

➤ **Adding foreign keys:**

```
USE user_orders;
ALTER TABLE orders
```

```
ADD FOREIGN KEY(user_id) REFERENCES user(user_id) ON DELETE SET NULL;
```

```
ALTER TABLE orders
ADD FOREIGN KEY(product_id) REFERENCES products(product_id) ON DELETE SET NULL;
```







```
ALTER TABLE order_detail
ADD PRIMARY KEY(order_id, product_id);
```

```
ALTER TABLE user ADD gender VARCHAR(1);
SELECT * FROM user;
```

## ➤ Inserting values into tables

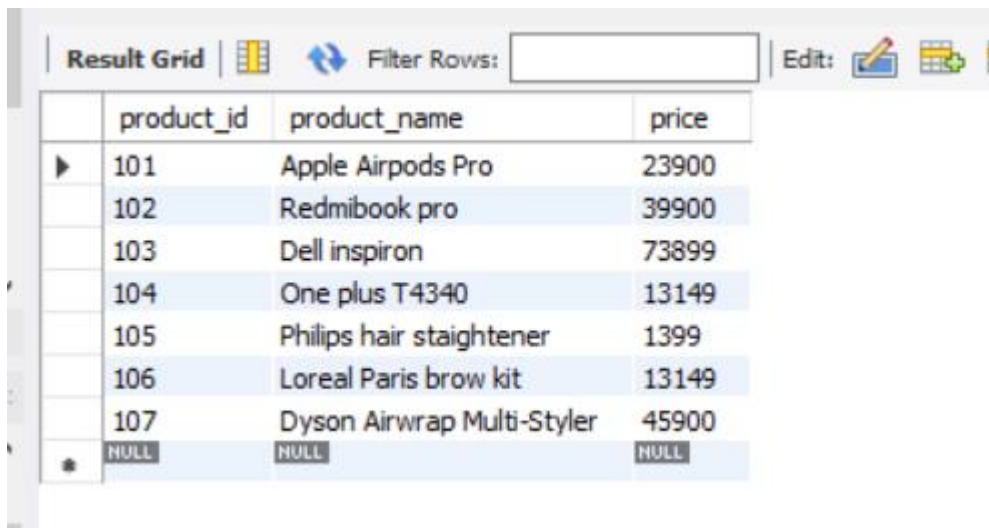
```
INSERT INTO user VALUES(1,'Heema', 'Goratela', 'heemag2002@gmail.com', 'abc', '282839', 'F');
INSERT INTO user VALUES(2,'Dhatri', 'Goratela', 'dhatrig2007@gmail.com', 'xyz', '17273', 'F');
INSERT INTO user VALUES(3,'Dhaval', 'Bheda', 'dhavalb@gmail.com', 'dff', '273744', 'M');
INSERT INTO user VALUES(4,'Megh', 'Patel', 'megh2009@gmail.com', 'gjhg', '182833', 'M');
INSERT INTO user VALUES(5,'Khushi', 'Rajpal', 'khushir@gmail.com', 'ahs', '1872873', 'F');
INSERT INTO user VALUES(6,'Preeti', 'Harjani', 'preeti405@gmail.com', 'fdf', '283834', 'F');
INSERT INTO user VALUES(7,'Kunal', 'Patel', 'kunalp@gmail.com', 'abf', '6868967', 'M');
INSERT INTO user VALUES(8,'Hinal', 'Dor', 'hinal2005@gmail.com', 'fgg', '45677', 'F');
```

```
SELECT * From user;
```

Result Grid							
Filter Rows: <input type="text"/>							
Edit:   							
Export/Import:  							
Wrap Cell Content: 							
	user_id	first_name	last_name	email	address	contact_no	gender
▶	1	Heema	Goratela	heemag2002@gmail.com	abc	282839	F
	2	Dhatri	Goratela	dhatrig2007@gmail.com	xyz	17273	F
	3	Dhaval	Bheda	dhavalb@gmail.com	dff	273744	M
	4	Megh	Patel	megh2009@gmail.com	gjhg	182833	M
	5	Khushi	Rajpal	khushir@gmail.com	ahs	1872873	F
	6	Preeti	Harjani	preeti405@gmail.com	fdf	283834	F
	7	Kunal	Patel	kunalp@gmail.com	abf	6868967	M
	8	Hinal	Dor	hinal2005@gmail.com	fgg	45677	F
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
INSERT INTO products VALUES(101, 'Apple AirPods Pro', 23900);
INSERT INTO products VALUES(102, 'Redmibook pro', 39900);
INSERT INTO products VALUES(103, 'Dell inspiron', 73899);
INSERT INTO products VALUES(104, 'One plus T4340', 13149);
INSERT INTO products VALUES(105, 'Philips hair straightener', 1399);
INSERT INTO products VALUES(106, 'Loreal Paris brow kit', 13149);
INSERT INTO products VALUES(107, 'Dyson Airwrap Multi-Styler', 45900);
```

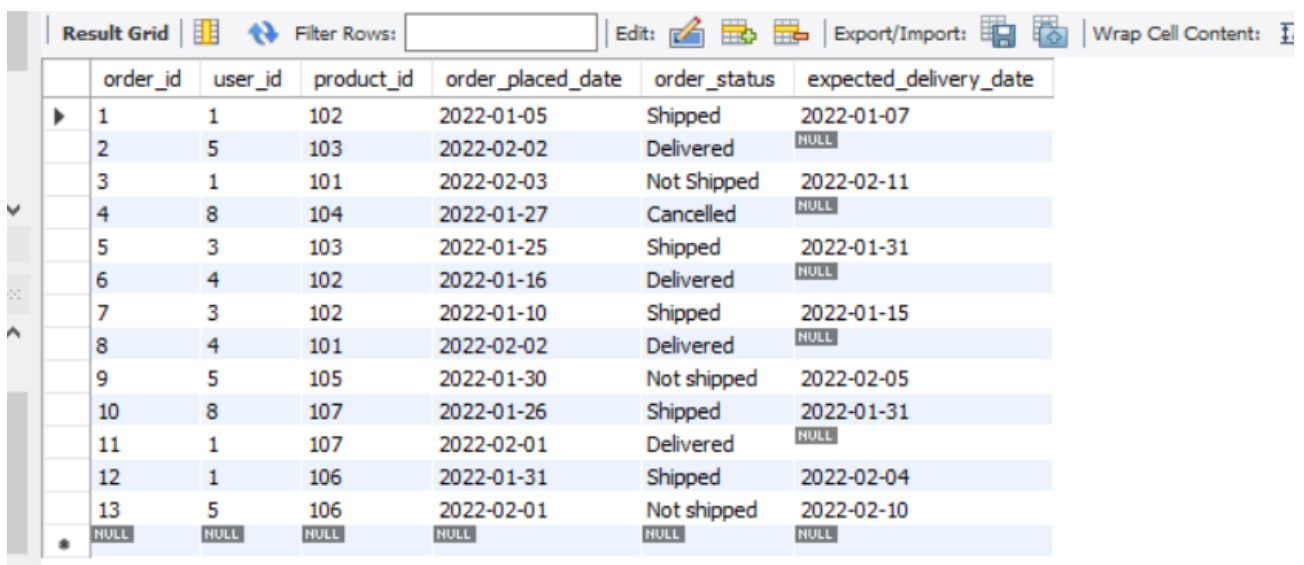
SELECT \* from products;



	product_id	product_name	price
▶	101	Apple Airpods Pro	23900
	102	Redmibook pro	39900
	103	Dell inspiron	73899
	104	One plus T4340	13149
	105	Philips hair staightener	1399
	106	Loreal Paris brow kit	13149
	107	Dyson Airwrap Multi-Styleler	45900
✱	NULL	NULL	NULL

```
INSERT INTO orders VALUES(1,1,102, '2022-01-05', 'Shipped', '2022-01-07');
INSERT INTO orders VALUES(2,5,103, '2022-02-02', 'Delivered', NULL);
INSERT INTO orders VALUES(3,1,101, '2022-02-03', 'Not Shipped', '2022-02-11');
INSERT INTO orders VALUES(4,8,104, '2022-01-27', 'Cancelled', NULL);
INSERT INTO orders VALUES(5,3,103, '2022-01-25', 'Shipped', '2022-01-31');
INSERT INTO orders VALUES(6,4,102, '2022-01-16', 'Delivered', null);
INSERT INTO orders VALUES(7,3,102, '2022-01-10', 'Shipped', '2022-01-15');
INSERT INTO orders VALUES(8,4,101, '2022-02-02', 'Delivered', null);
INSERT INTO orders VALUES(9,5,105, '2022-01-30', 'Not shipped', '2022-02-05');
INSERT INTO orders VALUES(10,8,107, '2022-01-26', 'Shipped', '2022-01-31');
INSERT INTO orders VALUES(11,1,107, '2022-02-01', 'Delivered', null);
INSERT INTO orders VALUES(12,1,106, '2022-01-31', 'Shipped', '2022-02-04');
INSERT INTO orders VALUES(13,5,106, '2022-02-01', 'Not shipped', '2022-02-10');
```

SELECT \* FROM orders;



	order_id	user_id	product_id	order_placed_date	order_status	expected_delivery_date
▶	1	1	102	2022-01-05	Shipped	2022-01-07
	2	5	103	2022-02-02	Delivered	NULL
	3	1	101	2022-02-03	Not Shipped	2022-02-11
	4	8	104	2022-01-27	Cancelled	NULL
	5	3	103	2022-01-25	Shipped	2022-01-31
	6	4	102	2022-01-16	Delivered	NULL
	7	3	102	2022-01-10	Shipped	2022-01-15
	8	4	101	2022-02-02	Delivered	NULL
	9	5	105	2022-01-30	Not shipped	2022-02-05
	10	8	107	2022-01-26	Shipped	2022-01-31
	11	1	107	2022-02-01	Delivered	NULL
	12	1	106	2022-01-31	Shipped	2022-02-04
	13	5	106	2022-02-01	Not shipped	2022-02-10
✱	NULL	NULL	NULL	NULL	NULL	NULL

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)

➤ **QUERY:**

```
SELECT user.first_name, user.last_name, products.product_name,
orders.order_placed_date, orders.order_status,
coalesce(datediff(orders.expected_delivery_date,
orders.order_placed_date), 0) AS expected_delivery_in_days
FROM orders INNER JOIN products ON
orders.product_id=products.product_id
INNER JOIN user ON orders.user_id=user.user_id ORDER BY
expected_delivery_in_days DESC;
```

➤ **OUTPUT:**

first_name	last_name	product_name	order_placed_date	order_status	expected_delivery_in_days
Khushi	Rajpal	Loreal Paris brow kit	2022-02-01	Not shipped	9
Heema	Goratela	Apple AirPods Pro	2022-02-03	Not Shipped	8
Dhaval	Bheda	Dell inspiron	2022-01-25	Shipped	6
Khushi	Rajpal	Philips hair straightener	2022-01-30	Not shipped	6
Dhaval	Bheda	Redmibook pro	2022-01-10	Shipped	5
Hinal	Dor	Dyson Airwrap Multi-Styler	2022-01-26	Shipped	5
Heema	Goratela	Loreal Paris brow kit	2022-01-31	Shipped	4
Heema	Goratela	Redmibook pro	2022-01-05	Shipped	2
Megh	Patel	Apple AirPods Pro	2022-02-02	Delivered	0
Megh	Patel	Redmibook pro	2022-01-16	Delivered	0
Khushi	Rajpal	Dell inspiron	2022-02-02	Delivered	0
Hinal	Dor	One plus T4340	2022-01-27	Cancelled	0
Heema	Goratela	Dyson Airwrap Multi-Styler	2022-02-01	Delivered	0

## 2. Create summary report which provide information about

### - All undelivered Orders

➤ **QUERY:**

```
SELECT o.order_id, u.first_name, u.last_name,
p.product_name, o.order_placed_date, o.order_status FROM
orders AS o INNER JOIN products AS p ON o.product_id=p.product_id
INNER JOIN user AS u ON o.user_id=u.user_id
WHERE o.order_status!='Delivered' AND o.order_status!='Cancelled' ORDER BY
order_placed_date;
```

➤ **OUTPUT:**

Result Grid   Filter Rows:   Export:   Wrap Cell Content:						
	order_id	first_name	last_name	product_name	order_placed_date	order_status
▶	1	Heema	Goratela	Redmibook pro	2022-01-05	Shipped
	7	Dhaval	Bheda	Redmibook pro	2022-01-10	Shipped
	5	Dhaval	Bheda	Dell inspiron	2022-01-25	Shipped
	10	Hinal	Dor	Dy Dyson Airwrap Multi-Styler	2022-01-26	Shipped
	9	Khushi	Rajpal	Philips hair straightener	2022-01-30	Not shipped
	12	Heema	Goratela	Loreal Paris brow kit	2022-01-31	Shipped
	13	Khushi	Rajpal	Loreal Paris brow kit	2022-02-01	Not shipped
	3	Heema	Goratela	Apple AirPods Pro	2022-02-03	Not Shipped

### - 5 Most recent orders

#### ➤ **QUERY:**

```
SELECT o.order_id, u.first_name, u.last_name, p.product_name, o.order_placed_date
FROM
orders AS o INNER JOIN products AS p ON o.product_id=p.product_id
INNER JOIN user AS u ON o.user_id=u.user_id
ORDER BY order_placed_date DESC LIMIT 5;
```

#### ➤ **OUTPUT:**

Result Grid   Filter Rows:   Export:   Wrap Cell Content:   Fetch rows:					
	order_id	first_name	last_name	product_name	order_placed_date
▶	3	Heema	Goratela	Apple AirPods Pro	2022-02-03
	2	Khushi	Rajpal	Dell inspiron	2022-02-02
	8	Megh	Patel	Apple AirPods Pro	2022-02-02
	11	Heema	Goratela	Dyson Airwrap Multi-Styler	2022-02-01
	13	Khushi	Rajpal	Loreal Paris brow kit	2022-02-01

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

#### ➤ **QUERY:**

```
SELECT u.user_id, u.first_name, u.last_name, COUNT(o.user_id) AS
order_count_of_users FROM
orders AS o INNER JOIN user AS u ON o.user_id=u.user_id GROUP BY o.user_id
ORDER BY order_count_of_users DESC LIMIT 5;
```

#### ➤ **OUTPUT:**

Result Grid   Filter Rows:   Export:   Wrap Cell Content:				
	user_id	first_name	last_name	order_count_of_users
▶	1	Heema	Goratela	4
	5	Khushi	Rajpal	3
	3	Dhaval	Bheda	2
	4	Megh	Patel	2
	8	Hinal	Dor	2

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

➤ **QUERY:**

```
SELECT u.user_id, u.first_name,
u.last_name, IF(COUNT(o.user_id)=0, "inactive_user", "active_user") AS user_status
FROM
orders AS o RIGHT JOIN user AS u ON o.user_id=u.user_id GROUP BY u.user_id;
```

```
SELECT u.user_id, u.first_name,
u.last_name, IF(COUNT(o.user_id)=0, "inactive_user", "active_user") AS user_status
FROM
orders AS o RIGHT JOIN user AS u ON o.user_id=u.user_id GROUP BY u.user_id
HAVING COUNT(o.user_id)=0;
```

➤ **OUTPUT:**

Result Grid   Filter Rows:   Export:   Wr				
	user_id	first_name	last_name	user_status
▶	1	Heema	Goratela	active_user
	2	Dhatri	Goratela	inactive_user
	3	Dhaval	Bheda	active_user
	4	Megh	Patel	active_user
	5	Khushi	Rajpal	active_user
	6	Preeti	Harjani	inactive_user
	7	Kunal	Patel	inactive_user
	8	Hinal	Dor	active_user



Result Grid					Filter Rows:	Export:	Wrap Cell Content:
	user_id	first_name	last_name	user_status			
▶	2	Dhatri	Goratela	inactive_user			
	6	Preeti	Harjani	inactive_user			
	7	Kunal	Patel	inactive_user			

### - Top 5 Most purchased products

#### ➤ **QUERY:**

```
SELECT p.product_id, p.product_name, COUNT(o.product_id) AS product_count
FROM
orders AS o INNER JOIN products AS p ON o.product_id=p.product_id GROUP BY
o.product_id ORDER BY product_count DESC LIMIT 5;
```

#### ➤ **OUTPUT:**

Result Grid				Filter Rows:	Export:	Wrap Cell Content:	Fetch rows
	product_id	product_name	product_count				
▶	102	Redmibook pro	3				
	101	Apple AirPods Pro	2				
	103	Dell inspiron	2				
	107	Dyson Airwrap Multi-Styler	2				
	106	Loreal Paris brow kit	2				

### - Most expensive and most cheapest orders.

#### ➤ **QUERY:**

Most expensive orders query:

WITH RESULT AS

(

```
SELECT o.order_id, p.product_id, p.product_name, p.price,
dense_rank() over (ORDER BY p.price DESC) AS
most_expensive_order
```

```
FROM products AS p INNER JOIN orders AS o ON
p.product_id=o.product_id
```

```

)
SELECT * FROM RESULT WHERE RESULT.most_expensive_order=1;
Most cheapest orders query:
WITH RESULT AS
(
    SELECT o.order_id,p.product_id,p.product_name,p.price,
    dense_rank() over (ORDER BY p.price ASC) AS most_cheapest_order
    FROM products AS p INNER JOIN orders AS o ON
    p.product_id=o.product_id
)
SELECT * FROM RESULT WHERE RESULT.most_cheapest_order=1;

```

➤ **OUTPUT:**

order_id	product_id	product_name	price	most_expensive_order
2	103	Dell inspiron	73899	1
5	103	Dell inspiron	73899	1

order_id	product_id	product_name	price	most_cheapest_order
9	105	Philips hair straightener	1399	1