

DataBase



E Commerce Store

**Laiba zulfiqar
Zainab Fatima
Ali Akbar**

Submitted to:
Mam Hina Rashid

Team Members

Ali Akbar – BSE 233016

Laiba Zulfiqar – BSE233022

Zainab Fatima – BSE233008

Git hub URL = <https://github.com/ali-akbar-019/db-project.git>

Testing

Using this UI to add products:

New Product

X

Add the details of the product.

NameBrand Name

PriceDiscounted Price

StockWho Can Use This product

Select Gender

Category

Select Category

Description

Enter Something About the product

Upload Image

Click to Upload Image

Add images of the product. You can add up to 4 images. Once the product is uploaded the images can not be changed

Save ProductClear

This is the code used to add the product, using prisma ,sql , express and node js

```
const createProducts = async (req, res) => {
  try {
    const { images, ...productData } = req.body;

    if (!images || !Array.isArray(images) || images.length === 0) {
      return res.status(404).json({
        message: "Images not found or invalid format",
      });
    }

    // Create the product first
    const product = await prisma.product.create({
      data: {
        ...productData,
      },
    });

    // Create images linked to the product
    const imagePromises = images.map((img) =>
      prisma.image.create({
        data: {
          url: img,
          altText: img.altText || null,
          productId: product.id,
        },
      })
    );


    const allImages = await Promise.all(imagePromises);

    return res.status(200).json({
      message: "Product created successfully",
      product,
      images: allImages,
    });
  } catch (error) {
    console.error("Error while creating the product:", error.message);
    return res.status(500).json({
      message: "Error while creating the product",
    });
  }
};
```



Added this

Furniture Boost Velocity Gaming Chair



Boost Velocity Gaming Chair

The Boost Velocity Gaming Chair - Black/Red features a seamlessly

★★★★★ (0)

\$4500.00

Lowest price in the market

Choose a Color

☐ ☒ ☐ ☐

— 1 + Only 10 items left. Don't miss it!

[Buy Now](#) [Add to Cart](#)

Free Delivery
Enter your Postal code for Delivery Availability

Return Delivery

SQL Queries:

1. Select all users

SELECT * FROM User;

```
MariaDB [shope_ease]> SELECT * FROM User;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | name  | email                | auth0Id                | addressLine1 | city | country | phone      | createdAt                | isProfileSetup |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1  | ali akbar | gamesforever018@gmail.com | google-oauth2|106907915912617662580 | khanna pull | isb     | +923485831286 | 2024-12-25 07:20:40.961 | 1              |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)
```

2. Select specific columns from the Product table

SELECT id, name, price FROM Product;

```
MariaDB [shope_ease]> SELECT id, name, price FROM Product;
```

id	name	price
5	Armor Hoodie Black	400
7	Basic Hoodie - 5001	400
8	Apple iPhone 16 Pro Max 256GB	3000
9	SL A3368 iREST MASSAGE CHAIR	3000
10	Boost Velocity Gaming Chair	5000

```
5 rows in set (0.000 sec)
```

3. Select products where stock is less than 10

Select name, stock from product where stock < 10;

```
MariaDB [shope_ease]> SELECT name, stock FROM Product WHERE stock < 10;
Empty set (0.000 sec)
```

4. Select users from a specific city

SELECT name, email FROM User WHERE city = 'isb';

```
MariaDB [shope_ease]> SELECT name, email FROM User WHERE city = 'isb';
```

name	email
ali akbar	gamesforever018@gmail.com

```
1 row in set (0.000 sec)
```

Projection Queries

5. Select distinct countries of users

```
SELECT DISTINCT country FROM User;
```

```
MariaDB [shope_ease]> SELECT DISTINCT country FROM User;
+-----+
| country |
+-----+
| pakistan |
+-----+
1 row in set (0.000 sec)
```

6. Select names of users and their cities

```
SELECT name, city FROM User;
```

```
MariaDB [shope_ease]> SELECT name, city FROM User;
+-----+-----+
| name      | city |
+-----+-----+
| ali akbar | isb  |
+-----+-----+
1 row in set (0.000 sec)
```

Joining Queries

7. Join User and CartItem to fetch user cart items

```
SELECT u.name, c.productId, c.quantity
```

```
FROM User u
```

```
JOIN CartItem c ON u.id = c.userId;
```



```
MariaDB [shopeEase]> SELECT u.name, c.productId, c.quantity  
-> FROM User u  
-> JOIN CartItem c ON u.id = c.userId;
```

name	productId	quantity
ali akbar	5	4
ali akbar	7	1
ali akbar	5	5
ali akbar	5	2
ali akbar	7	1
ali akbar	8	1

6 rows in set (0.001 sec)

8. Join Product and Image to fetch product images

```
SELECT p.name AS ProductName, i.url AS ImageURL
```

```
FROM Product p
```

```
JOIN Image i ON p.id = i.productId;
```

```
MariaDB [shope_ease]> SELECT p.name AS ProductName, i.url AS ImageURL
-> FROM Product p
-> JOIN Image i ON p.id = i.productId;
```

ProductName	ImageURL
Armor Hoodie Black	uploads/files/1736063775056_1000084-ArmorHoodieBlack_01_bf22178f-324e-437f-af68-be4edd1f4a29.webp
Armor Hoodie Black	uploads/files/1736063768436_Model-Unisex-MVP-Hoodie-Oversize-Black-6_2a0a29ce-1d2f-4710-afaa-f9d7f7e8cfac.webp
Armor Hoodie Black	uploads/files/1736063772698_51RqbRc08TL.AC_UY1000.jpg
Armor Hoodie Black	uploads/files/1736063778690_d4ede8a1b8903344f595a18858c16cab0fdd9f65_clt7383_1.webp
Basic Hoodie - 5001	uploads/files/1736064497018_SCvA3fJZ_0a9514fbf9684fd78c0c28fe5267ff4d.jpg
Basic Hoodie - 5001	uploads/files/1736064492873_MBH25001-MAROON-1.webp
Basic Hoodie - 5001	uploads/files/1736064500812_MFL-11936_02_IM_03-Tory_Hooded_Sweat-Burnt_Red.jpg
Basic Hoodie - 5001	uploads/files/1736064498963_-473Wx593H-700647225-maroon-MODEL.avif
Apple iPhone 16 Pro Max 256GB	uploads/files/1736593180829_Apple-iPhone-16-Pro-max-cellmart.webp
Apple iPhone 16 Pro Max 256GB	uploads/files/1736593211208_Apple-iPhone-16-Pro-max-hero-240909-lp.jpg.og.jpg
Apple iPhone 16 Pro Max 256GB	uploads/files/1736593183405_iPhone-16-Pro.avif
Apple iPhone 16 Pro Max 256GB	uploads/files/1736593266456_ntc-Hero-Line-Up.avif
SL A3368 iREST MASSAGE CHAIR	uploads/files/1736599800468_main3368.webp
SL A3368 iREST MASSAGE CHAIR	uploads/files/1736599826834_fourth.webp
SL A3368 iREST MASSAGE CHAIR	uploads/files/1736599805907_3368_db4a8a54-a8b1-446c-984b-27c55b02c56c.webp
SL A3368 iREST MASSAGE CHAIR	uploads/files/1736599793044_sla-235-3.webp
Boost Velocity Gaming Chair	uploads/files/1736600443646_images (1).jfif
Boost Velocity Gaming Chair	uploads/files/1736600441340_images.jfif
Boost Velocity Gaming Chair	uploads/files/1736600447575_83c391dc3005442f1a1221846eb28059_800x.webp
Boost Velocity Gaming Chair	uploads/files/1736600445690_1664123364_12_4159.jpg

```
20 rows in set (0.001 sec)
```

9. Join CartItem, Product, and User to fetch cart details

```
SELECT u.name AS UserName, p.name AS ProductName, c.quantity, c.isOrdered
```

```
FROM CartItem c
```

```
JOIN Product p ON c.productId = p.id
```

```
JOIN User u ON c.userId = u.id;
```

```
MariaDB [shope_ease]> SELECT u.name AS UserName, p.name AS ProductName, c.quantity, c.isOrdered
-> FROM CartItem c
-> JOIN Product p ON c.productId = p.id
-> JOIN User u ON c.userId = u.id;
```

UserName	ProductName	quantity	isOrdered
ali akbar	Armor Hoodie Black	4	1
ali akbar	Basic Hoodie - 5001	1	1
ali akbar	Armor Hoodie Black	5	1
ali akbar	Armor Hoodie Black	2	1
ali akbar	Basic Hoodie - 5001	1	1
ali akbar	Apple iPhone 16 Pro Max 256GB	1	0

```
6 rows in set (0.001 sec)
```

Aggregation Queries

10.Count the total number of users

```
SELECT COUNT(*) AS TotalUsers FROM User;
```

```
MariaDB [shopeEase]> SELECT COUNT(*) AS TotalUsers FROM User;
+-----+
| TotalUsers |
+-----+
|          1 |
+-----+
1 row in set (0.003 sec)
```

11. Find the average price of products

```
SELECT AVG(price) AS AveragePrice FROM Product;
```

```
MariaDB [shopeEase]> SELECT AVG(price) AS AveragePrice FROM Product;
+-----+
| AveragePrice |
+-----+
|          2360 |
+-----+
1 row in set (0.000 sec)
```

12. Find the total revenue from all orders

```
SELECT SUM(totalAmount) AS TotalRevenue FROM `Order`;
```

```
MariaDB [shopeEase]> SELECT SUM(totalAmount) AS TotalRevenue FROM `Order`;
+-----+
| TotalRevenue |
+-----+
|          5630 |
+-----+
1 row in set (0.000 sec)
```

13. Find the maximum rating of products

```
SELECT MAX(rating) AS MaxRating FROM Product;
```

```
MariaDB [shopeEase]> SELECT MAX(rating) AS MaxRating FROM Product;
+-----+
| MaxRating |
+-----+
|          0 |
+-----+
1 row in set (0.001 sec)
```

14. Find the number of products in each category

```
SELECT category, COUNT(*) AS ProductCount
```

```
FROM Product
```

```
GROUP BY category;
```

```
MariaDB [shopeEase]> SELECT category, COUNT(*) AS ProductCount
-> FROM Product
-> GROUP BY category;
+-----+-----+
| category          | ProductCount |
+-----+-----+
| clothes-and-shoes |            2 |
| electronics       |            1 |
| furniture         |            2 |
+-----+-----+
3 rows in set (0.002 sec)
```

Subqueries

15. Find users who have placed an order

```
SELECT name, email
```

```
FROM User
```

```
WHERE id IN (SELECT userId FROM `Order`);
```

```
MariaDB [shope_ease]> SELECT name, email
-> FROM User
-> WHERE id IN (SELECT userId FROM `Order`);
+-----+-----+
| name      | email                               |
+-----+-----+
| ali akbar | gamesforever018@gmail.com         |
+-----+-----+
1 row in set (0.001 sec)
```

16. Find products that are in a user's cart but not yet ordered

```
SELECT name
```

```
FROM Product
```

```
WHERE id IN (SELECT productId FROM CartItem WHERE isOrdered = FALSE);
```

```
MariaDB [shope_ease]> SELECT name
-> FROM Product
-> WHERE id IN (SELECT productId FROM CartItem WHERE isOrdered = FALSE);
+-----+
| name                                     |
+-----+
| Apple iPhone 16 Pro Max 256GB         |
+-----+
1 row in set (0.001 sec)
```

17. Find the total revenue of a specific user

```
SELECT SUM(o.totalAmount) AS UserRevenue
```

```
FROM `Order` o
```

```
WHERE o.userId = (SELECT id FROM User WHERE name = 'Ali Akbar');
```

```
MariaDB [shope_ease]> SELECT SUM(o.totalAmount) AS UserRevenue
  -> FROM `Order` o
  -> WHERE o.userId = (SELECT id FROM User WHERE name = 'Ali Akbar');
+-----+
| UserRevenue |
+-----+
|         5630 |
+-----+
1 row in set (0.001 sec)
```

CRUD Operations

Create:

18. Insert a new user

```
INSERT INTO User (name, email, auth0Id, city, country, phone, createdAt)
```

```
VALUES ('Ali Akbar', 'ali@example.com', 'auth0|12345', 'Karachi', 'Pakistan', '1234567890',
NOW());
```

```
MariaDB [shope_ease]> INSERT INTO User (name, email, auth0Id, city, country, phone, createdAt)
  -> VALUES ('Ali Akbar', 'ali@example.com', 'auth0|12345', 'Karachi', 'Pakistan', '1234567890', NOW());
Query OK, 1 row affected (0.015 sec)
```

19. Insert a new product

```
INSERT INTO Product (name, brand, price, stock, category, gender, createdAt)
```

```
VALUES ('Smartphone', 'BrandX', 25000, 50, 'Electronics', 'BOTH', NOW());
```

```
MariaDB [shope_ease]> INSERT INTO Product (name, brand, price, stock, category, gender, createdAt)
  -> VALUES ('Smartphone', 'BrandX', 25000, 50, 'Electronics', 'BOTH', NOW());
Query OK, 1 row affected, 1 warning (0.004 sec)
```

Read:

20. Retrieve products above a specific price

```
SELECT name, price FROM Product WHERE price > 20000;
```

```
MariaDB [shope_ease]> SELECT name, price FROM Product WHERE price > 20000;
+-----+-----+
| name      | price |
+-----+-----+
| Smartphone | 25000 |
+-----+-----+
1 row in set (0.002 sec)
```

21. Fetch all users who have more than one cart item

```
SELECT u.name, COUNT(c.id) AS CartItems
```

```
FROM User u
```

```
JOIN CartItem c ON u.id = c.userId
```

```
GROUP BY u.id
```

```
HAVING COUNT(c.id) > 1;
```

```
MariaDB [shope_ease]> SELECT u.name, COUNT(c.id) AS CartItems
-> FROM User u
-> JOIN CartItem c ON u.id = c.userId
-> GROUP BY u.id
-> HAVING COUNT(c.id) > 1;
+-----+-----+
| name      | CartItems |
+-----+-----+
| ali akbar |          6 |
+-----+-----+
1 row in set (0.001 sec)
```

Update:

22. Update stock of a specific product

UPDATE Product

SET stock = stock + 10

WHERE id = 1;

```
MariaDB [shope_ease]> UPDATE Product
-> SET stock = stock + 10
-> WHERE id = 1;
Query OK, 0 rows affected (0.000 sec)
Rows matched: 0  Changed: 0  Warnings: 0
```

23. Mark a cart item as ordered

UPDATE CartItem

SET isOrdered = TRUE

WHERE id = 3;

```
MariaDB [shope_ease]> UPDATE CartItem
-> SET isOrdered = TRUE
-> WHERE id = 3;
Query OK, 0 rows affected (0.001 sec)
Rows matched: 0  Changed: 0  Warnings: 0
```

Delete:

24. Delete User

DELETE FROM User WHERE id = 5;

```
MariaDB [shope_ease]> DELETE FROM User WHERE id = 5;  
Query OK, 0 rows affected (0.001 sec)
```

25. Delete Product

Delete from product where id = 100;

```
MariaDB [shope_ease]> delete from product where id = 100;  
Query OK, 0 rows affected (0.000 sec)
```