

SQL INTERNSHIP TASK 1

DATE: 23/06/2025

DAY: MONDAY

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DOMAIN:

E-COMMERCE

This schema supports a comprehensive e-commerce system including customer and admin management, product listings, shopping cart functionality, order processing, payments, shipping, and product reviews.

ENTITIES:

1. Customers

Primary Key: customer_id

- Stores user profile details like name, email, password, and address.

2. Admins

Primary Key: admin_id

- Stores admin credentials and roles.

3. Categories

Primary Key: category_id

- Product categorization for easier browsing.

4. Products

Primary Key: product_id

Foreign Key: category_id → categories(category_id)

- Contains product information such as name, description, price, stock.

5. Cart

Primary Key: cart_id

Foreign Keys:

customer_id → customers(customer_id)

product_id → products(product_id)

- Stores product selections before purchase.

6. Orders

Primary Key: order_id

Foreign Key: customer_id → customers(customer_id)

- Represents confirmed purchases made by customers.

7. Order_Items

Primary Key: order_item_id

Foreign Keys:

order_id → orders(order_id)

product_id → products(product_id)

- Line items within a single order.

8. Payments

Primary Key: payment_id

Foreign Key: order_id → orders(order_id)

- Payment details per order.

9. Shipping

Primary Key: shipping_id

Foreign Key: order_id → orders(order_id)

- Shipping status and address.

10. Reviews

Primary Key: review_id

Foreign Keys:

customer_id → customers(customer_id)

product_id → products(product_id)

Customer feedback on products.

CODE:

CUSTOMER TABLE

```
CREATE TABLE customers (  
    customer_id INT PRIMARY KEY,  
    name VARCHAR(100),  
    email VARCHAR(100) UNIQUE,  
    password_hash VARCHAR(255),  
    phone VARCHAR(15),  
    address TEXT  
);
```

ADMIN TABLE

```
CREATE TABLE admins (  
    admin_id INT PRIMARY KEY,  
    name VARCHAR(100),  
    email VARCHAR(100) UNIQUE,  
    password_hash VARCHAR(255),  
    role VARCHAR(50)  
);
```

CATEGORIES TABLE

```
CREATE TABLE categories (  
    category_id INT PRIMARY KEY,  
    name VARCHAR(100)  
);
```

PRODUCTS TABLE

```
CREATE TABLE products (  
    product_id INT PRIMARY KEY,  
    name VARCHAR(100),  
    description TEXT,  
    price DECIMAL(10, 2),  
    stock_quantity INT,  
    category_id INT,  
    FOREIGN KEY (category_id) REFERENCES categories(category_id)  
);
```

CART TABLE

```
CREATE TABLE cart (  
    cart_id INT PRIMARY KEY,  
    customer_id INT,  
    product_id INT,  
    quantity INT,
```

```
FOREIGN KEY (customer_id) REFERENCES customers(customer_id),  
FOREIGN KEY (product_id) REFERENCES products(product_id)  
);
```

ORDERS TABLE

```
CREATE TABLE orders (  
    order_id INT PRIMARY KEY,  
    customer_id INT,  
    order_date DATE,  
    total_amount DECIMAL(10, 2),  
    status VARCHAR(50),  
    FOREIGN KEY (customer_id) REFERENCES customers(customer_id)  
);
```

ORDER ITEMS TABLE

```
CREATE TABLE order_items (  
    order_item_id INT PRIMARY KEY,  
    order_id INT,  
    product_id INT,  
    quantity INT,  
    price_each DECIMAL(10, 2),  
    FOREIGN KEY (order_id) REFERENCES orders(order_id),  
    FOREIGN KEY (product_id) REFERENCES products(product_id)  
);
```

PAYMENTS TABLE

```
CREATE TABLE payments (  
    payment_id INT PRIMARY KEY,  
    order_id INT,  
    payment_date DATE,  
    amount DECIMAL(10, 2),  
    method VARCHAR(50),  
    status VARCHAR(50),  
    FOREIGN KEY (order_id) REFERENCES orders(order_id)  
);
```

SHIPPING TABLE

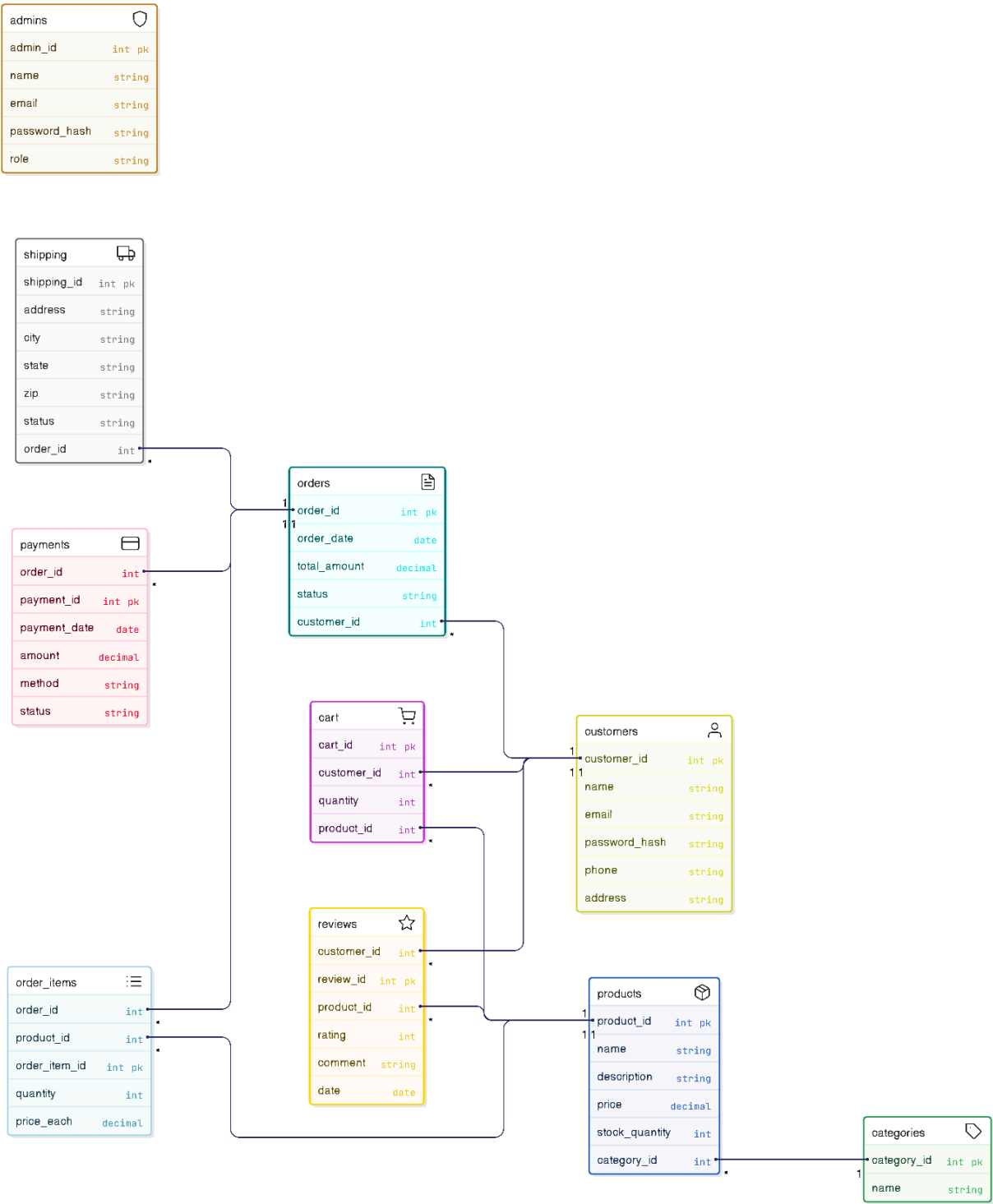
```
CREATE TABLE shipping (  
    shipping_id INT PRIMARY KEY,  
    order_id INT,  
    address TEXT,  
    city VARCHAR(100),  
    state VARCHAR(100),  
    zip VARCHAR(20),
```

```
status VARCHAR(50),  
FOREIGN KEY (order_id) REFERENCES orders(order_id)  
);
```

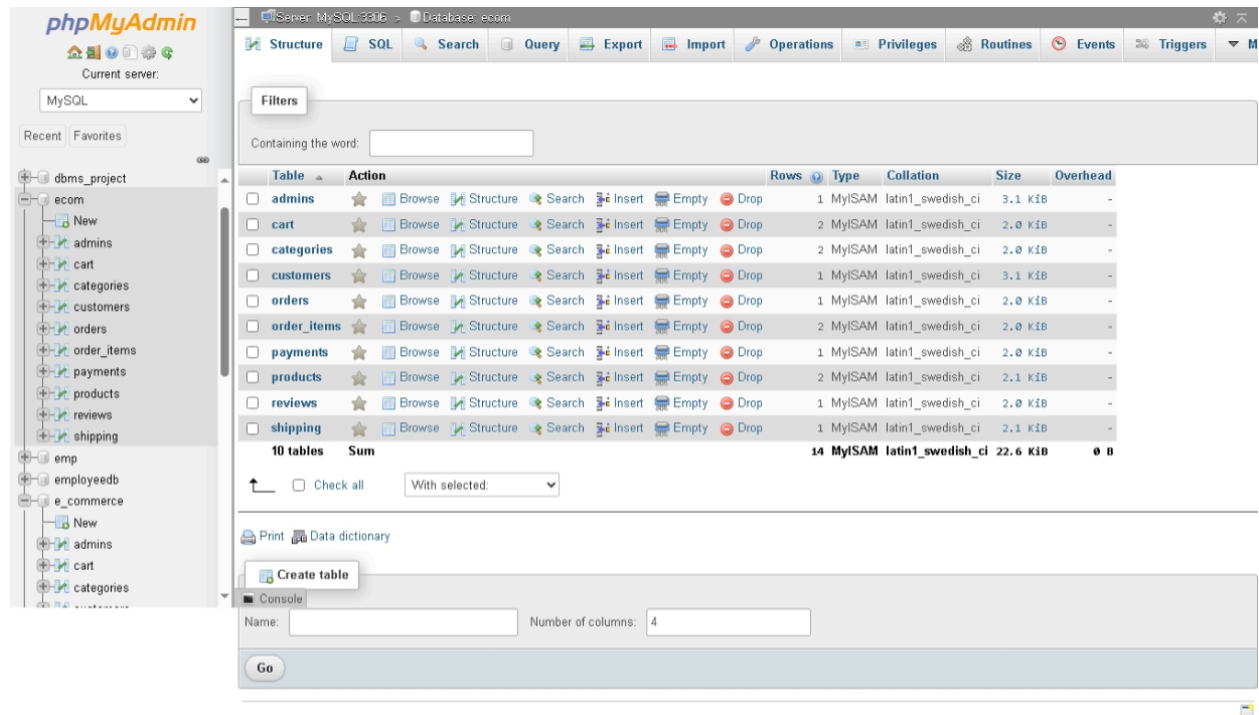
REVIEWS TABLE

```
CREATE TABLE reviews (  
  review_id INT PRIMARY KEY,  
  customer_id INT,  
  product_id INT,  
  rating INT,  
  comment TEXT,  
  date DATE,  
  FOREIGN KEY (customer_id) REFERENCES customers(customer_id),  
  FOREIGN KEY (product_id) REFERENCES products(product_id)  
);
```

ER DIAGRAM:



OUTPUT SCREENSHOTS:



Admin table:

	admin_id	name	email	password_hash	role
<input checked="" type="checkbox"/>	1	NIVETHA R	nivethan@gmail.com	\$2y\$10\$hash2	superadmin

Cart table:

	cart_id	customer_id	product_id	quantity
<input type="checkbox"/>	1	1	101	2
<input type="checkbox"/>	2	1	102	1

Category table:

	category_id	name
<input type="checkbox"/>	1	Electronics
<input type="checkbox"/>	2	Clothing

Customers table:

	customer_id	name	email	password_hash	phone	address
<input type="checkbox"/>	1	Saranya A	saranya@gmail.com	\$2y\$10\$hash1	9876543210	123 Main St, Chennai, TN

Orders table:

	order_id	customer_id	order_date	total_amount	status
<input type="checkbox"/>	1001	1	2025-06-23	2397.00	Processing

Order_items table:

		order_item_id	order_id	product_id	quantity	price_each
<input type="checkbox"/>	Edit Copy Delete	1	1001	101	2	699.00
<input type="checkbox"/>	Edit Copy Delete	2	1001	102	1	999.00
		↑ <input type="checkbox"/> Check all With selected: Edit Copy Delete Export				

Payments table:

		payment_id	order_id	payment_date	amount	method	status
<input type="checkbox"/>	Edit Copy Delete	501	1001	2025-06-23	2397.00	UPI	Completed

Products table:

		product_id	name	description	price	stock_quantity	category
<input type="checkbox"/>	Edit Copy Delete	101	Wireless Mouse	Ergonomic, USB receiver	699.00	150	Electronics
<input type="checkbox"/>	Edit Copy Delete	102	Hoodie	Cotton, blue, unisex	999.00	80	Clothing

Reviews table:

		review_id	customer_id	product_id	rating	comment	date
<input type="checkbox"/>	Edit Copy Delete	1	1	101	4	Great mouse, smooth!	2025-06-22

Shipping table:

		shipping_id	order_id	address	city	state	zip	status
<input type="checkbox"/>	Edit Copy Delete	301	1001	123 Main St, Apartment 4B	Chennai	Tamil Nadu	600001	In Transit