DBMS Project

Gada Electronics Online Retail Store

Group 10

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Embedded SQL Queries

1.

```python
def insert_new_cart_and_payment(cursor, cart_id, customer_id):
    """Inserts a new cart and pending payment into the database."""
    # cursor.execute("INSERT INTO Cart (Cart_ID, Customer_ID) VALUES (%s, %s)",
(cart_id, customer_id))
    cursor.execute("INSERT INTO Payment (Payment_ID, Customer_ID, Cart_ID, Status)
VALUES (%s, %s, %s, 'Pending')",
                   ('PAY' + ''.join(random.choices(string.ascii_uppercase +
string.digits, k=10)), customer_id, cart_id))
```

2.

```python
def find_nearest_warehouse(customer_address_id):

    conn = mysql_connection()

    cursor = conn.cursor(dictionary=True)

    # Get the customer's pin code

    cursor.execute("SELECT Pincode FROM Address
WHERE Address_ID = %s", (customer_address_id,))

    customer_result = cursor.fetchone()

    if not customer_result:  # Check if the
address exists

        return None

    customer_pincode = customer_result['Pincode']
```

```python
    # Fetch all distinct warehouse pin codes

    cursor.execute("SELECT DISTINCT Pincode FROM
Warehouse")

    warehouses = cursor.fetchall()

    if not warehouses:  # Check if there are any
warehouses

        return None

    # Find the nearest warehouse based on pin code
difference

    try:

        nearest_warehouse_pin = min(warehouses,
key=lambda x: abs(int(x['Pincode']) -
int(customer_pincode)))['Pincode']

    except ValueError:  # Catch the ValueError if
warehouses is empty

        cursor.close()

        conn.close()

        return None

    cursor.close()

    conn.close()

    # Return the pin code of the nearest warehouse

    return nearest_warehouse_pin
```

Triggers

1. DELIMITER $$

   CREATE TRIGGER RestockProductsAfterSale
   AFTER UPDATE ON Warehouse
   FOR EACH
   ROW BEGIN
       IF OLD.Warehouse_Quantity > NEW.Warehouse_Quantity AND NEW.Warehouse_Quantity < 5
       T
           -- Assuming 5 as the minimum threshold for a specific warehouse UPDATE
           Warehouse
           SET Warehouse_Quantity = 20 -- Restocking to quantity of 20 in the specific war WHERE
           Product_ID = NEW.Product_ID AND Pincode = NEW.Pincode;
       END IF;
   END $$
   DELIMITER ;

2. DELIMITER $$

   CREATE TRIGGER ClearCartAfterPayment
   AFTER UPDATE ON Payment
   FOR EACH
   ROW BEGIN
       IF NEW.Status = 'Completed' THEN
           DELETE FROM Cart WHERE Cart_ID =
       NEW.Cart_ID; END IF;
   END$$
   DELIMITER ;

Web pages

Customer Pages
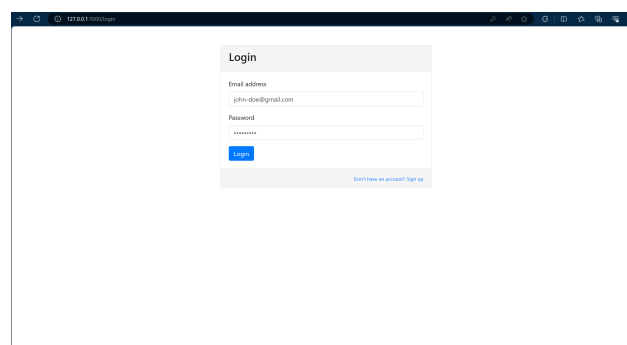
Figure 1: Login Page

Figure 2: Sign-Up Page
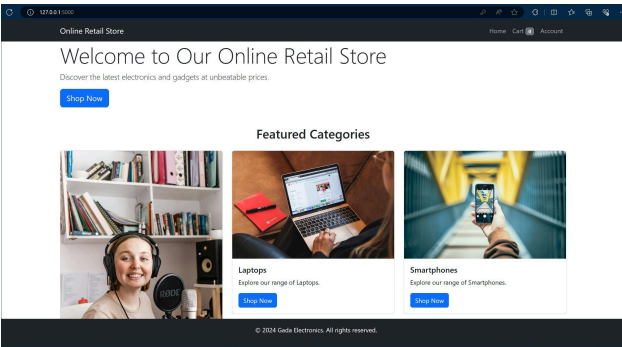
Figure 3: Home Page
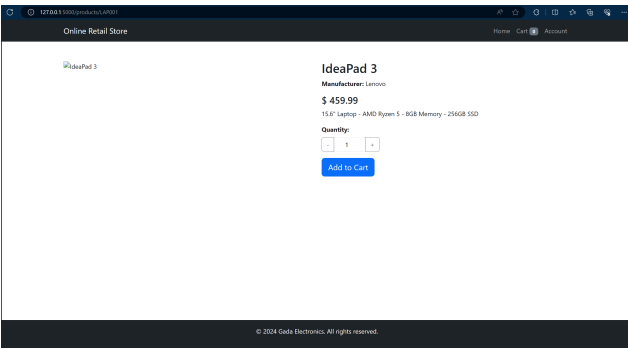

Figure 4: Address Page

Figure 5: Products Page
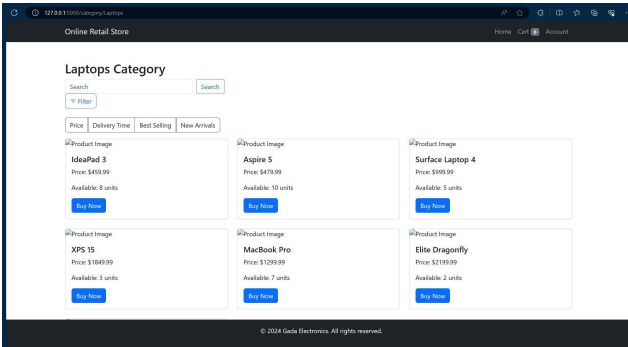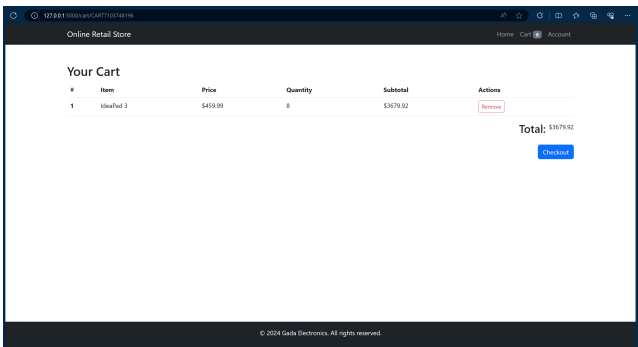
Figure 6: Buy Product Page

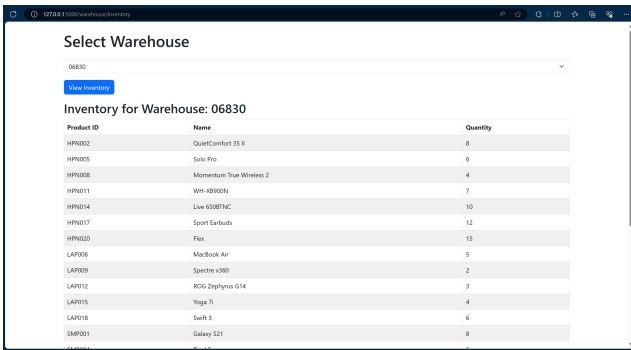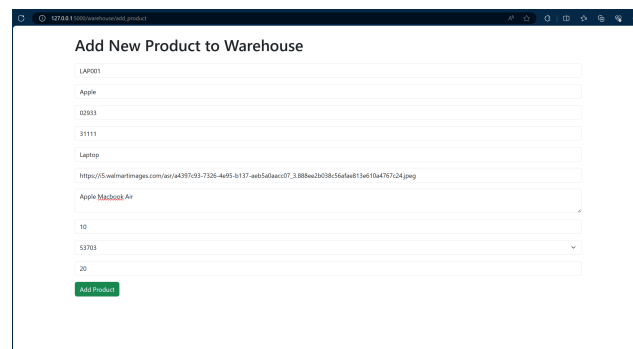Figure 7: Cart Page
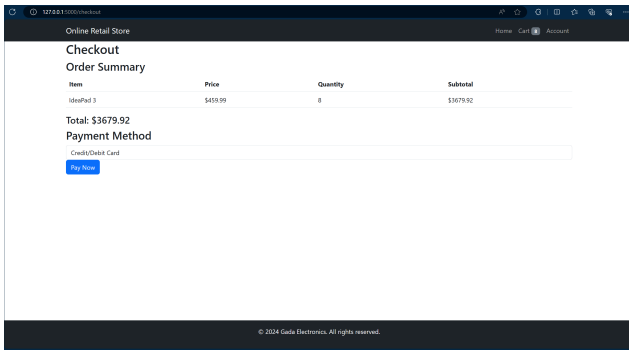
Figure 8: Checkout Page

Admin Pages

Figure 9: Inventory Page

Figure 10: Add Product Page

Contributions

All group members contributed equally to this submission.