**PHASE 4 SUBMISSION DOCUMENT**

**Project:** E-COMMERCE APPLICATION USING CLOUD COMPUTING

**Introduction:**

E-commerce platform by implementing user authentication, shopping cart, and checkout functionality. Implement user registration and authentication features using a backend server

**User authentication:**

**User Registration and Login:**

* User registration and login functionality for personalized shopping experiences.
* Store user profiles, order history, and shipping addresses.

**Program:**

*Register.html*

<!doctype html>

<html class="no-js" lang="en">

  <head>

    <meta charset="utf-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>Register || Modern Artisanal Shop</title>

    <link rel="stylesheet" href="css/foundation.css" />

    <script src="js/vendor/modernizr.js"></script>

  </head>

  <body>

    <nav class="top-bar" data-topbar role="navigation">

      <ul class="title-area">

        <li class="name">

          <h1><a href="index.php">Modern Artisanal Shop</a></h1>

        </li>

        <li class="toggle-topbar menu-icon"><a href="#"><span></span></a></li>

      </ul>

      <section class="top-bar-section">

      <!-- Right Nav Section -->

        <ul class="right">

          <li><a href="about.php">About</a></li>

          <li><a href="products.php">Products</a></li>

          <li><a href="cart.php">View Cart</a></li>

          <li><a href="orders.php">My Orders</a></li>

          <li><a href="contact.php">Contact</a></li>

          <?php

          if(isset($\_SESSION['username'])){

            echo '<li><a href="account.php">My Account</a></li>';

            echo '<li><a href="logout.php">Log Out</a></li>';

          }

          else{

            echo '<li><a href="login.php">Log In</a></li>';

            echo '<li class="active"><a href="register.php">Register</a></li>';

          }

          ?>

        </ul>

      </section>

    </nav>

    <form method="POST" action="insert.php" style="margin-top:30px;">

      <div class="row">

        <div class="small-8">

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">First Name</label>

            </div>

            <div class="small-8 columns">

              <input type="text" id="right-label" placeholder="Nayan" name="fname">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">Last Name</label>

            </div>

            <div class="small-8 columns">

              <input type="text" id="right-label" placeholder="Seth" name="lname">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">Address</label>

            </div>

            <div class="small-8 columns">

              <input type="text" id="right-label" placeholder="Infinite Loop" name="address">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">City</label>

            </div>

            <div class="small-8 columns">

              <input type="text" id="right-label" placeholder="Mumbai" name="city">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">Pin Code</label>

            </div>

            <div class="small-8 columns">

              <input type="number" id="right-label" placeholder="400056" name="pin">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">E-Mail</label>

            </div>

            <div class="small-8 columns">

              <input type="email" id="right-label" placeholder="nayantronix@gmail.com" name="email">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">Password</label>

            </div>

            <div class="small-8 columns">

              <input type="password" id="right-label" name="pwd">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

            </div>

            <div class="small-8 columns">

              <input type="submit" id="right-label" value="Register" style="background: #0078A0; border: none; color: #fff; font-family: 'Helvetica Neue', sans-serif; font-size: 1em; padding: 10px;">

              <input type="reset" id="right-label" value="Reset" style="background: #0078A0; border: none; color: #fff; font-family: 'Helvetica Neue', sans-serif; font-size: 1em; padding: 10px;">

            </div>

          </div>

        </div>

      </div>

    </form>

    <div class="row" style="margin-top:10px;">

      <div class="small-12">

        <footer>

           <p style="text-align:center; font-size:0.8em;">&copy;  Modern Artisanal Shop. All Rights Reserved.</p>

        </footer>

      </div>

    </div>

    <script src="js/vendor/jquery.js"></script>

    <script src="js/foundation.min.js"></script>

    <script>

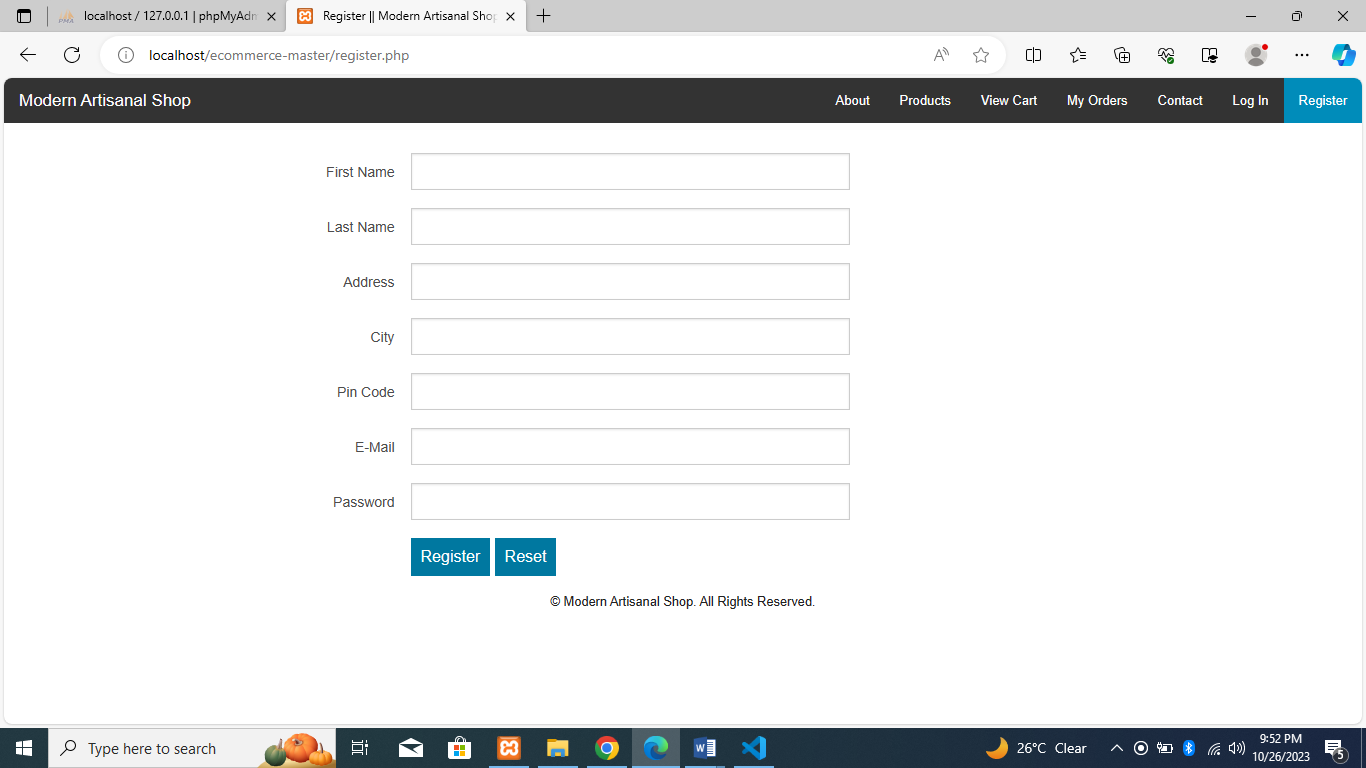
      $(document).foundation();

    </script>

  </body>

</html>

**Output:**

****

*Login.html:*

<!doctype html>

<html class="no-js" lang="en">

  <head>

    <meta charset="utf-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>Login || Modern Artisanal Shop</title>

    <link rel="stylesheet" href="css/foundation.css" />

    <script src="js/vendor/modernizr.js"></script>

  </head>

  <body>

    <nav class="top-bar" data-topbar role="navigation">

      <ul class="title-area">

        <li class="name">

          <h1><a href="index.php">Modern Artisanal Shop</a></h1>

        </li>

        <li class="toggle-topbar menu-icon"><a href="#"><span></span></a></li>

      </ul>

      <section class="top-bar-section">

      <!-- Right Nav Section -->

        <ul class="right">

          <li><a href="about.php">About</a></li>

          <li><a href="products.php">Products</a></li>

          <li><a href="cart.php">View Cart</a></li>

          <li><a href="orders.php">My Orders</a></li>

          <li><a href="contact.php">Contact</a></li>

          <?php

          if(isset($\_SESSION['username'])){

            echo '<li><a href="account.php">My Account</a></li>';

            echo '<li><a href="logout.php">Log Out</a></li>';

          }

          else{

            echo '<li class="active"><a href="login.php">Log In</a></li>';

            echo '<li><a href="register.php">Register</a></li>';

          }

          ?>

        </ul>

      </section>

    </nav>

    <form method="POST" action="verify.php" style="margin-top:30px;">

      <div class="row">

        <div class="small-8">

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">Email</label>

            </div>

            <div class="small-8 columns">

              <input type="email" id="right-label"  name="username">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

              <label for="right-label" class="right inline">Password</label>

            </div>

            <div class="small-8 columns">

              <input type="password" id="right-label" name="pwd">

            </div>

          </div>

          <div class="row">

            <div class="small-4 columns">

            </div>

            <div class="small-8 columns">

              <input type="submit" id="right-label" value="Login" style="background: #0078A0; border: none; color: #fff; font-family: 'Helvetica Neue', sans-serif; font-size: 1em; padding: 10px;">

              <input type="reset" id="right-label" value="Reset" style="background: #0078A0; border: none; color: #fff; font-family: 'Helvetica Neue', sans-serif; font-size: 1em; padding: 10px;">

            </div>

          </div>

        </div>

      </div>

    </form>

    <div class="row" style="margin-top:10px;">

      <div class="small-12">

        <footer>

           <p style="text-align:center; font-size:0.8em;">&copy; Modern Artisanal Shop. All Rights Reserved.</p>

        </footer>

      </div>

    </div>

    <script src="js/vendor/jquery.js"></script>

    <script src="js/foundation.min.js"></script>

    <script>

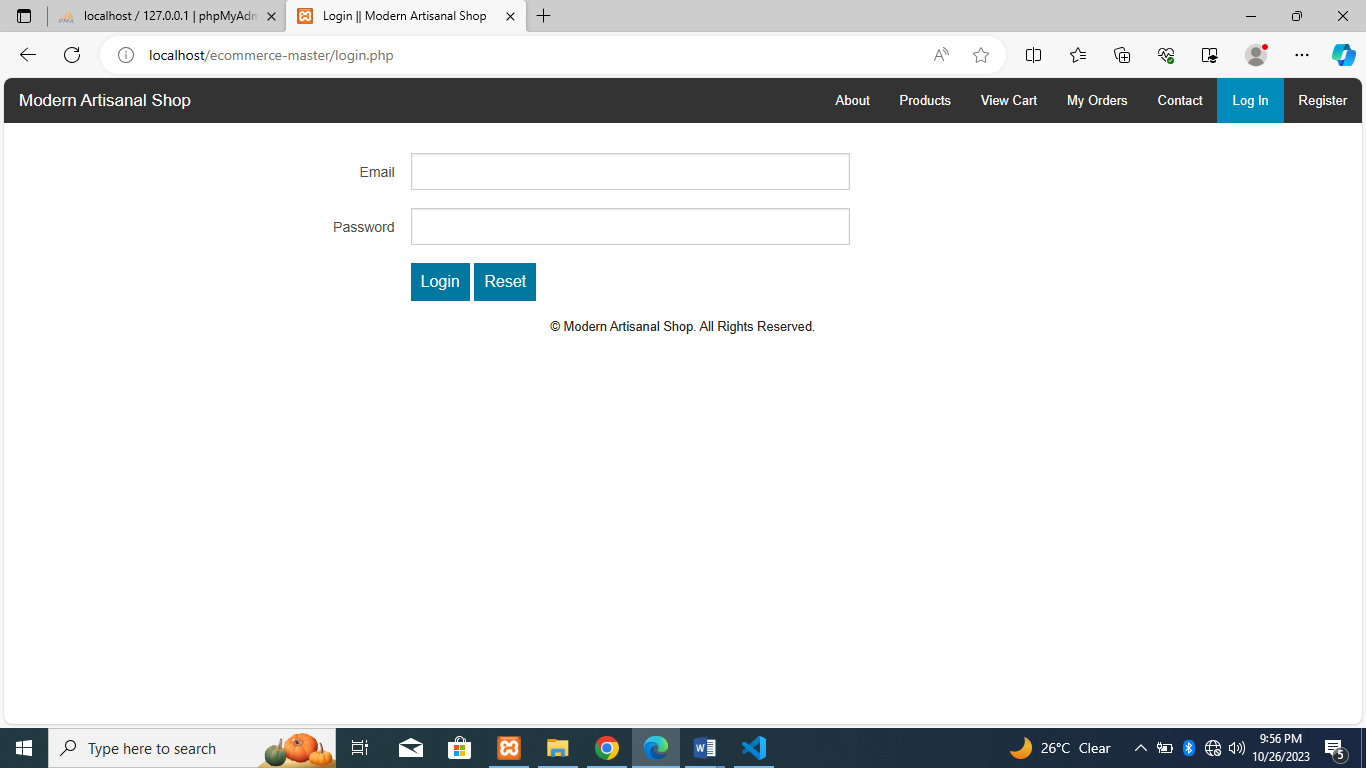
      $(document).foundation();

    </script>

  </body>

</html>

**Output:**

****

*Logout.php:*

<?php

  session\_start();

  session\_unset();

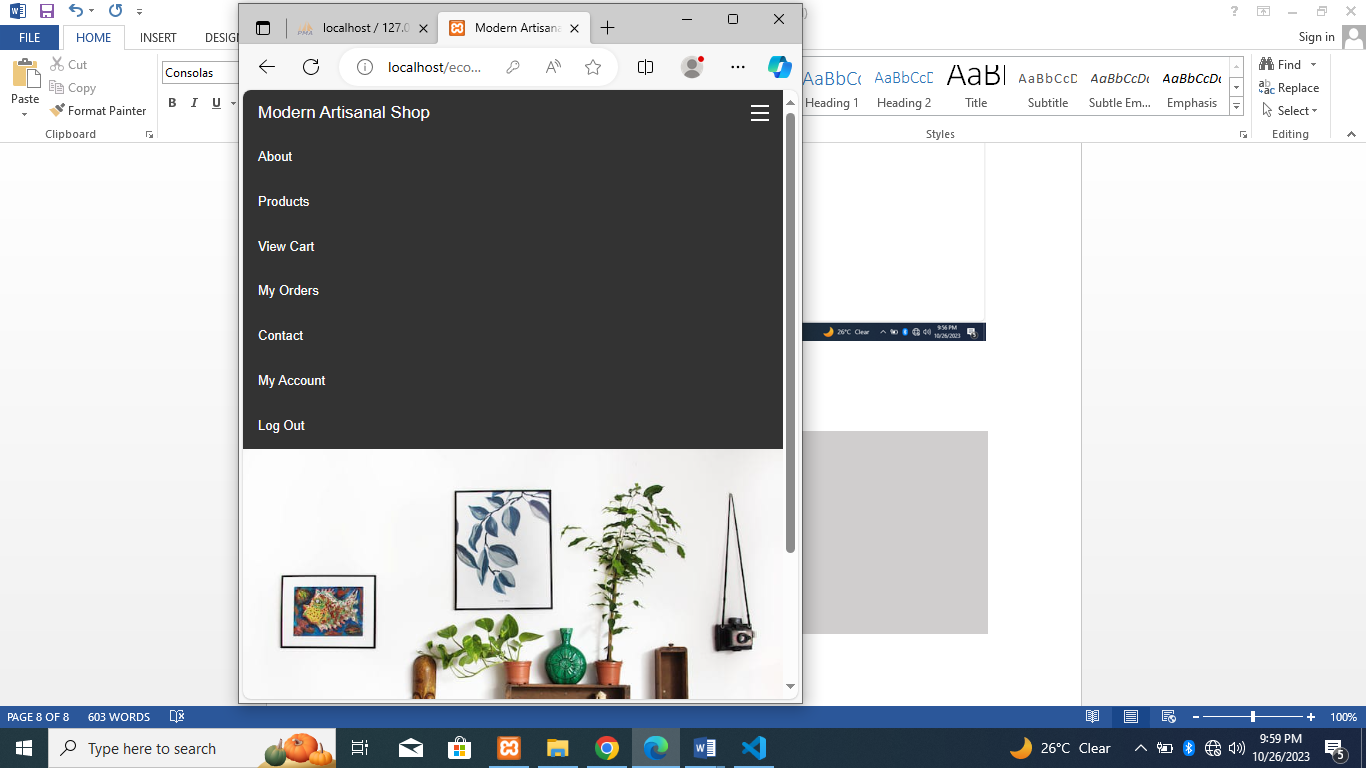
  session\_destroy();

  header("location:index.php");

  exit();

?>

**Output:**



**Shopping cart:**

**Shopping Cart:**

* Enable users to add and manage items in their shopping cart.
* Display a summary of items in the cart and the total cost.
* Allow users to easily update quantities or remove items.

<?php

//if (session\_status() !== PHP\_SESSION\_ACTIVE) {session\_start();}

if(session\_id() == '' || !isset($\_SESSION)){session\_start();}

include 'config.php';

?>

<!doctype html>

<html class="no-js" lang="en">

  <head>

    <meta charset="utf-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>Shopping Cart || Modern Artisanal Shop</title>

    <link rel="stylesheet" href="css/foundation.css" />

    <script src="js/vendor/modernizr.js"></script>

  </head>

  <body>

    <nav class="top-bar" data-topbar role="navigation">

      <ul class="title-area">

        <li class="name">

          <h1><a href="index.php">Modern Artisanal Shop</a></h1>

        </li>

        <li class="toggle-topbar menu-icon"><a href="#"><span></span></a></li>

      </ul>

      <section class="top-bar-section">

      <!-- Right Nav Section -->

        <ul class="right">

          <li><a href="about.php">About</a></li>

          <li><a href="products.php">Products</a></li>

          <li class="active"><a href="cart.php">View Cart</a></li>

          <li><a href="orders.php">My Orders</a></li>

          <li><a href="contact.php">Contact</a></li>

          <?php

          if(isset($\_SESSION['username'])){

            echo '<li><a href="account.php">My Account</a></li>';

            echo '<li><a href="logout.php">Log Out</a></li>';

          }

          else{

            echo '<li><a href="login.php">Log In</a></li>';

            echo '<li><a href="register.php">Register</a></li>';

          }

          ?>

        </ul>

      </section>

    </nav>

    <div class="row" style="margin-top:10px;">

      <div class="large-12">

        <?php

          echo '<p><h3>Your Shopping Cart</h3></p>';

          if(isset($\_SESSION['cart'])) {

            $total = 0;

            echo '<table>';

            echo '<tr>';

            echo '<th>Code</th>';

            echo '<th>Name</th>';

            echo '<th>Quantity</th>';

            echo '<th>Cost</th>';

            echo '</tr>';

            foreach($\_SESSION['cart'] as $product\_id => $quantity) {

            $result = $mysqli->query("SELECT product\_code, product\_name, product\_desc, qty, price FROM products WHERE id = ".$product\_id);

            if($result){

              while($obj = $result->fetch\_object()) {

                $cost = $obj->price \* $quantity; //work out the line cost

                $total = $total + $cost; //add to the total cost

                echo '<tr>';

                echo '<td>'.$obj->product\_code.'</td>';

                echo '<td>'.$obj->product\_name.'</td>';

                echo '<td>'.$quantity.'&nbsp;<a class="button [secondary success alert]" style="padding:5px;" href="update-cart.php?action=add&id='.$product\_id.'">+</a>&nbsp;<a class="button alert" style="padding:5px;" href="update-cart.php?action=remove&id='.$product\_id.'">-</a></td>';

                echo '<td>'.$cost.'</td>';

                echo '</tr>';

              }

            }

          }

          echo '<tr>';

          echo '<td colspan="3" align="right">Total</td>';

          echo '<td>'.$total.'</td>';

          echo '</tr>';

          echo '<tr>';

          echo '<td colspan="4" align="right"><a href="update-cart.php?action=empty" class="button alert">Empty Cart</a>&nbsp;<a href="products.php" class="button [secondary success alert]">Continue Shopping</a>';

          if(isset($\_SESSION['username'])) {

            echo '<a href="orders-update.php"><button style="float:right;">COD</button></a>';

          }

          else {

            echo '<a href="login.php"><button style="float:right;">Login</button></a>';

          }

          echo '</td>';

          echo '</tr>';

          echo '</table>';

        }

        else {

          echo "You have no items in your shopping cart.";

        }

          echo '</div>';

          echo '</div>';

          ?>

    <div class="row" style="margin-top:10px;">

      <div class="small-12">

        <footer style="margin-top:10px;">

           <p style="text-align:center; font-size:0.8em;clear:both;">&copy; Modern Artisanal Shop. All Rights Reserved.</p>

        </footer>

      </div>

    </div>

    <script src="js/vendor/jquery.js"></script>

    <script src="js/foundation.min.js"></script>

    <script>

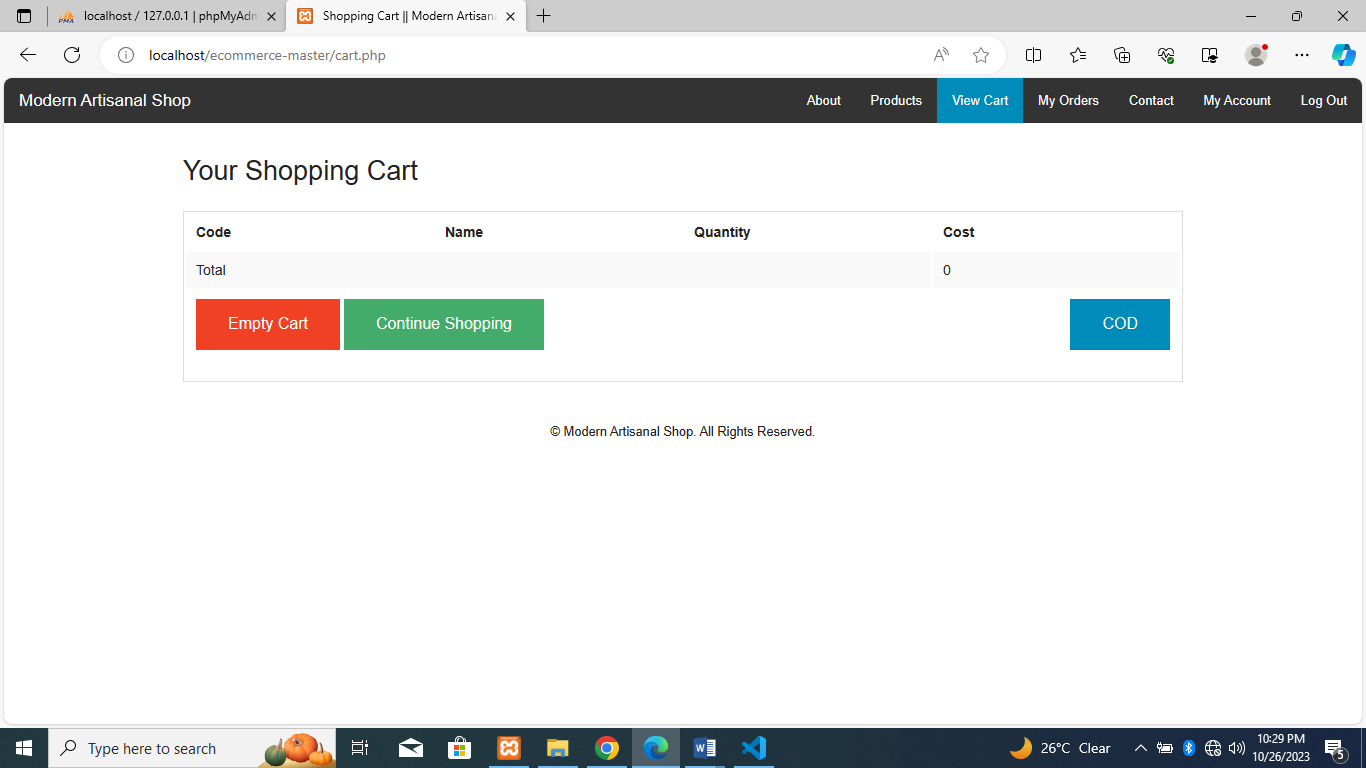
      $(document).foundation();

    </script>

  </body>

</html>

**Output:**

****

**Checkout:**

**Checkout Process:**

* A streamlined and secure checkout process.
* Multiple payment options, including credit/debit cards, digital wallets, and cash-on-delivery.
* Address validation for accurate shipping.
* Order confirmation and tracking.

<html>

    <head>

        <title>My Site Title</title>

        <link rel="stylesheet" href="styles/style.css" media="all">

    <head>

<body>

    <div class="main\_wrapper">

        <div class="header\_wrapper">This is a header!

            <img id="logo" src="images/logo.gif" >

            <img id="banner" src="images/ad\_banner.gif" >

        </div>

        <div class="menubar">

            <ul id="menu">

                <li><a href="index.php">Home</a></li>

                <li><a href="all\_products.php">All Products</a></li>

                <li><a href="customer/my\_account.php">My Account</a></li>

                <li><a href="#">Sign Up</a></li>

                <li><a href="cart.php">Shopping Cart</a></li>

                <li><a href="">Contact Us</a></li>

            </ul>

            <div id="form">

                <form method="get" action="results.php" enctype="multipart/form-data">

                    <input type="text" name="user\_query" / >

                    <input type="submit" name="search" value="Search" />

                </form>

            </div>

        </div>

    <div class="content\_wrapper">

        <div id="sidebar">

                <div id="sidebar\_title">Categories</div>

                <ul id="cats">

                    <?php getCats();?>

                </ul>

                <div id="sidebar\_title">Brands</div>

                <ul id="cats">

                    <?php

                    getBrands();

                    ?>

                </ul>

        </div>

            <div id="content\_area" style="background:pink;">

            <?php cart(); ?>

                <div id="shopping\_cart">

                    <span style="float:right; font-size:18px; padding:5px; line-height:40px;">

                        <?php

                        if(isset($\_SESSION['customer\_email'])){

                            echo "<b>Welcome:</b>" . $\_SESSION['customer\_email'] . "<b>Your</b>";

                        }

                        else{

                            echo "<b>Wecome Guest</b>";

                        }

                        ?>

                        <b style="color:yellow;">Shopping Cart -</b> Total Items:<?php total\_items() ?>

                        Total Price: <?php  total\_price(); ?><a href="cart.php" style="color:yellow;">Go to Cart</a>

                    </span>

                </div>

                <?php $ip = getIp();

                    //echo $ip;

                ?>

                <div id="products\_box">

                <?php

                if(!isset($\_SESSION['customer\_email'])){

                    include("customer\_login.php");

                }

                else{

                    include("payment.php");

                }

                ?>

                </div>

            </div>

        </div>

    </div>

    <div id="footer">

        <h2 style="text-align:center; padding-top:30px;">&copy; Modern Artisanal Shop. All Rights Reserved.</h2>

    </div>

 </body>

</html>

**user registration and authentication features using a backend server in python:**

from flask import Flask, render\_template, request, redirect, url\_for, session

from flask\_sqlalchemy import SQLAlchemy

from werkzeug.security import generate\_password\_hash, check\_password\_hash

app = Flask(\_name\_)

# Configure the database (SQLite in this example)

app.config['SQLALCHEMY\_DATABASE\_URI'] = 'sqlite:///users.db'

db = SQLAlchemy(app)

# Secret key for sessions (replace with a long random string)

app.secret\_key = 'your\_secret\_key'

# User model

class User(db.Model):

id = db.Column(db.Integer, primary\_key=True)

username = db.Column(db.String(80), unique=True, nullable=False)

password = db.Column(db.String(120), nullable=False)

# Routes

@app.route('/')

def home():

return "Welcome to the Home Page"

@app.route('/register', methods=['GET', 'POST'])

def register():

if request.method == 'POST':

username = request.form['username']

password = request.form['password']

hashed\_password = generate\_password\_hash(password, method='sha256')

new\_user = User(username=username, password=hashed\_password)

db.session.add(new\_user)

db.session.commit()

return redirect(url\_for('login'))

return render\_template('register.html')

@app.route('/login', methods=['GET', 'POST'])

def login():

if request.method == 'POST':

username = request.form['username']

password = request.form['password']

user = User.query.filter\_by(username=username).first()

if user and check\_password\_hash(user.password, password):

session['user\_id'] = user.id # Store user ID in session

return "Logged in as " + username

return "Invalid username or password"

return render\_template('login.html')

@app.route('/logout')

def logout():

session.pop('user\_id', None)

return redirect(url\_for('home'))

if \_name\_ == '\_main\_':

db.create\_all()

app.run(debug=True)

**Implement shopping cart functionality, calculate the total, and enable a smooth checkout process:**

from flask import jsonify

@app.route('/add\_to\_cart/<product\_id>', methods=['POST'])

def add\_to\_cart(product\_id):

if 'user\_id' in session:

user\_id = session['user\_id']

user = User.query.get(user\_id)

if user.cart:

cart = json.loads(user.cart)

else:

cart = {}

if product\_id in cart:

cart[product\_id] += 1

else:

cart[product\_id] = 1

user.cart = json.dumps(cart)

db.session.commit()

return jsonify({"message": "Product added to cart"})

@app.route('/checkout', methods=['GET', 'POST'])

def checkout():

if request.method == 'POST':

if 'user\_id' in session:

user\_id = session['user\_id']

user = User.query.get(user\_id)

if user.cart:

cart = json.loads(user.cart)

# Process the order here

# Calculate the total cost based on the cart contents

# After order processing, clear the cart

user.cart = json.dumps({})

db.session.commit()

return jsonify({"message": "Order processed"})

else:

return jsonify({"message": "Cart is empty"})

else:

return jsonify({"message": "Please log in to complete your order"})

return render\_template('checkout.html')

*checkout.html*

<!DOCTYPE html>

<html>

<head>

<title>Checkout – Modern Artisanals</title>

<link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<header>

<h1>Checkout</h1>

</header>

<nav>

<ul>

<li><a href="/">Home</a></li>

<li><a href="/products">Products</a></li>

<li><a href="/cart">Cart</a></li>

</ul>

</nav>

<section class="checkout">

<h2>Order Summary</h2>

<!-- Display order details and total cost here -->

<button class="complete-order">Complete Order</button>

</section>

<footer>

&copy; Modern Artisanal shop

</footer>

</body></html>

*Front-end integration:*

<button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

<script>

function addToCart(product\_id) {

fetch(`/add\_to\_cart/${product\_id}`, { method: 'POST' })

.then(response => response.json())

.then(data => console.log(data));

}

</script>

**Conclusion:**

Test the shopping cart and checkout functionality by running your Flask application and using the web interface.This example offers a simplified shopping cart and checkout process. In a real-world e-commerce application, you'd need to implement secure payment processing and potentially integrate with external payment gateways.