

**Vanier College
Faculty of Science and Technology**

**TRANSACTIONAL WEB APPLICATIONS
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Final Report

ShopCeramics
2024/01/31

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Project Final Report

Introduction

The ShopCeramics application is a comprehensive e-commerce web application tailored for the sale of ceramic articles. It offers a seamless integration of product management and showcase, user authentication, shopping cart functionality, and payment processing within a single platform. This application enhances the operational efficiency of e-commerce businesses and enriches the shopping experience for customers.

Version

1.0

Functional Requirements

- Upon successful user registration, the system shall send a confirmation message indicating that registration was successful, allowing the user to log in.
- After a successful login, username shall be displayed, and user can access to his/her account/shopping cart.
- In case of an unsuccessful login attempt, the system shall provide a helpful error message to guide the user.
- Access to the admin portal will be restricted and protected for users who are not in admin group.
- Logged in users can perform add/remove products to their shopping cart, make payment, check their order records.
- The order confirmation page shall show the order number, total amount paid information.

Non-Functional Requirements

- Performance: The system should respond to user actions, such as registration, login, and page loading, within 2 seconds to ensure a responsive user experience.
- Security: User data, including registration information, shopping cart details, and order records, must be stored and transmitted securely, following industry-standard encryption practices.

- **Reliability:** The system should have an uptime of at least 99% to ensure it is accessible to users consistently. It should also have a backup and recovery mechanism in place to prevent data loss in case of unexpected system failures.
- **Usability:** The user interface should be intuitive and user-friendly, ensuring that users can easily navigate through the registration process, login, and orders management. The products suggestions on the product details page should be presented in a clear and understandable manner.
- **Accessibility:** The application should be designed to be accessible to users with disabilities, following accessibility standards to accommodate a diverse user base.
- **Scalability:** The system should be able to handle a growing number of users without a significant degradation in performance, ensuring that it can accommodate an increasing user base over time.
- **Data Privacy:** The system must comply with data privacy regulations and provide users with the option to manage their data, including deleting their accounts and personal information.
- **Error Handling:** The system should have robust error handling and provide informative error messages to guide users when they encounter issues during registration, login, or products update in shopping cart.

User Stories

Title: Registration
<p>User Story</p> <p>As a User,</p> <p>I want to register an account.</p> <p>So that I can login to the application.</p>
<p>Acceptance Criteria</p> <p>Scenario: User input username, email address and password. Given: The application is running Then: The user should be registered successfully if all information needed is correctly provided.</p> <p>Scenario: User provides incorrect information like a weak password. Given: The application is running Then: The system will display "please provide a stronger password"</p>

Title: Logging in
<p>User Story</p> <p>As a User,</p> <p>I want to log in to the application.</p> <p>So that I can check my local weather information and get suggestion on how I should dress up. I also want to integrate my agenda on the same app, so I don't need check several places for different stuff.</p>
<p>Acceptance Criteria</p> <p>Scenario: User successfully logs into the application</p> <p>Given: The application is running</p> <p>When: The user enters valid credentials (username & password) or has a valid google account.</p> <p>Then: The user should be logged in successfully</p> <p>Scenario: User enters invalid credentials</p> <p>Given: The application is running</p> <p>When: The user enters invalid credentials</p> <p>Then: The user should not be logged in and should see an error message</p>

Title: Check products
<p>User Story</p> <p>As a User,</p> <p>I want to browser the products and their detailed information in order to decide which ones I would like to buy.</p>
<p>Acceptance Criteria</p> <p>Scenario: User checks products details.</p> <p>Given: The user is bowering the web page</p> <p>When: The user navigates to product page</p> <p>Then: The user will see all products of 3 categories.</p>

Title: Add products to shopping cart
<p>User Story</p> <p>As a User,</p> <p>I want to add products to my shopping cart.</p> <p>So that I can process payment later.</p>
<p>Acceptance Criteria</p> <p>Scenario: User are interested in products from the websites</p> <p>Given: The user is logged in</p> <p>When: The user navigates to product page</p> <p>Then: The user will click add to add products in his/her shopping cart</p> <p>Then: The user will check his/her shipping cart</p>

Title: Update products quantities in the shopping cart
<p>As a User,</p> <p>I want to add more or remove products from my shopping cart.</p> <p>So that I can process order later.</p>
<p>Acceptance Criteria</p> <p>Scenario: User is checking his/her shopping cart</p> <p>Given: The user has already added products in the shopping cart</p> <p>When: The user navigates to shopping cart page</p> <p>Then: The user will change the quantities of products in his/her shopping cart</p> <p>Then: The user will process to checkout</p>

Title: Check out for an order
<p>As a User,</p> <p>I want to check out my orders.</p> <p>So that I can make payment for this order.</p>
<p>Acceptance Criteria</p> <p>Scenario: User confirmed the products and their quantities in the shopping cart.</p>

Given: The user has already updated the products quantities, or the user does not need to update anything in the shopping cart.
 When: The user navigates to shopping cart page
 Then: The user will click checkout button.
 Then: The user will fill the delivery information.

Title: Make payment

As a User,

I want to pay for my order.

So that I can wait for the delivery.

Acceptance Criteria

Scenario: The user fill his/her card detailed information.
 Given: User filled the delivery form
 When: The user navigates to payment page
 Then: The user will click pay button
 Then: The user will see an order confirmation page.

Contributions:

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Task Team member	<i>Design</i>	<i>Activity Flow</i>	Database /API	Frontend-react	Authentication	Internationalization and localization	Deploy	Test Cases	CI/CD	Doc/Report
Li Fan		√	√	√	√				√	√
Shaojun Jiang	√	√	√	√	√		√			
Le Le Wei	√	√		√		√		√		√