

**Vanier College  
Faculty of Science and Technology**

**TRANSACTIONAL WEB APPLICATIONS  
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**Final Report**

**ShopCeramics**  
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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 agenda management. The dressing suggestions on the weather 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 agenda management.

## 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 &amp; 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
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Shaojun Jiang	√	√	√	√	√		√			
Le Le Wei	√	√		√		√		√		√