

User Requirements Specification desktop



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Table of contents

| | |
|-----------------------------|---|
| Introduction | 2 |
| Functional Requirements | 2 |
| Non-Functional Requirements | 2 |
| Use cases | 4 |

Introduction

This document shows the requirements needed for a management system for the project called Craft Connect. By giving priority to security, performance, maintainability, and availability, the system is designed to maximize operational efficiency by ensuring that all aspects of the system are secure, operate smoothly, are easy to maintain, and remain accessible at all times.

Functional Requirements

- FR-01: Business owners and the admin should be able to sign up to their account.
- FR-02: Business owners, customer and the admin should be able to log in to their account.
- FR-03: Business owners should be able to edit their products and workshops.
- FR-04: Business owners should be able to remove their products and workshops.
- FR-05: Removing a Product from the shopping cart.
- FR-06: Removing a Workshop from shopping cart
- FR-07: Customers should be able to add a product and/or workshop in the shopping cart.
- FR-08: Customers owners should be able to check out.
- FR-09: Business owners should be able to edit their profile.
- FR-10: Business owners, Admin, Customer should be able to log out.

Non-Functional Requirements

NFR-01: Security - Account Creation

Description: The registration process must enforce strict password standards, including minimum length and complexity requirements.

Importance: This requirement emphasizes safeguarding user accounts by implementing robust password policies, which terminate unauthorized access by brute force attacks or guessing the password.

Example Implementation:

Password length mandate: At least 8 characters.

Complexity requisites: Must incorporate a blend of uppercase letters, lowercase letters, digits, and special symbols.

Validation: Routine audits or automated assessments can ensure proper enforcement of the password policy during account creation.

Post-condition: User accounts are established with passwords conforming to the prescribed criteria, thereby fortifying security against unauthorized entry.

2. NFR-02: Performance

Description: The system must handle 1,500 users at the same time without experiencing performance issues.

Importance: This requirement labels the responsiveness and scalability of the system, guaranteeing its ability to deliver a sizable user base without encountering slowdowns or performance bottlenecks.

Example Implementation:

Utilization of scalable infrastructure for example cloud-based services to dynamically assign resources in response to demand. Deployment of efficient caching mechanisms to reduce the database load and improve response times.

Validation: Load testing can simulate high user loads to verify the system's performance under these conditions.

Post-condition: System updates are seamlessly applied during restarts, ensuring it remains current with the latest enhancements and security patches.

3. NFR-03: Availability

Description: The system must be accessible 24/7, with all pages loading within 5 seconds.

Importance: This requirement ensures the system's availability and responsiveness, enabling users to access the application at any time without significant delays.

Example Implementation:

Utilization of redundant servers and failover mechanisms to minimize downtime and ensure high availability.

Optimization of frontend and backend code to improve page load times and overall system responsiveness.

Validation: Regular monitoring and uptime checks ensure the system meets availability and performance targets specified in this requirement.

Post-condition: The system remains consistently available, and all web pages load within the specified timeframe, guaranteeing uninterrupted access and a satisfactory user experience.

4. NFR-04: Maintainability

Description: The system should update automatically upon program restart.

Importance: This requirement focuses on ensuring the system stays current with the latest updates or patches, critical for addressing security vulnerabilities and maintaining system reliability.

Example Implementation:

Utilization of automated deployment pipelines or continuous integration/continuous deployment (CI/CD) processes for automatic updates.

Integration with version control systems to manage code changes and facilitate automated updates.

Validation: Automated tests can verify successful system updates without disruptions or errors. Post-condition: The system updates automatically without interruption during restarts.

Use cases

UC-01: Business Owner, Customer and Admin Account Sign-Up

Actor: Business Owner, Customer, Admin

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the sign-up page.
3. Actor fills in the required information for account creation (e.g., username, email, password).
4. Actor submits the sign-up form.
5. System validates the provided information.
6. System creates an account for the actor with the provided credentials.
7. System confirms the successful creation of the account.
8. Actor receives a confirmation message or email regarding the account creation.

Extensions:

05a: Invalid or Incomplete Information

1. System displays an error message indicating the invalid or incomplete information.
2. Actor corrects the information or provides the required details.
3. Return to Main Success Scenario step 4.

Post-Condition: The actor (business owner or admin) successfully creates an account, allowing them access to their respective functionalities within the web application.

UC-02: Business Owner, Customer and Admin Account Login

Actor: Business Owner, Customer, Admin

Pre-Condition: The web application is accessible; actors have valid credentials to log in.

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the login page.
3. Actor fills in the credentials (e.g., username, password).
4. Actor submits the login form.
5. System verifies the provided credentials.
6. System confirms the authentication of the actor.
7. System redirects the actor to their respective dashboard or designated page.

Extensions:

04a: Wrong Credentials

1. System displays an error message indicating incorrect credentials.
2. Actor retries entering the correct credentials.
3. Return to Main Success Scenario step 4.

Post-Condition: Successful login grants the Actor access to their respective dashboard or designated page within the web application. Incorrect credentials prompt the actor to retry the login process.

UC-03: Editing Products and Workshops

Actor: Business Owner

Pre-Condition: The business owner is logged in to the web application and has access rights to edit products and workshops.

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the dashboard or menu option related to managing products and workshops.
3. Actor selects the option to edit a specific product or workshop.
4. System displays the details of the selected product or workshop in an editable form.
5. Actor modifies the desired details of the product or workshop.
6. Actor submits the form or confirms the changes.
7. System validates the submitted information and updates the product or workshop accordingly.
8. System confirms the successful update of the product or workshop.
9. Actor is redirected back to the products and workshops management page or dashboard.

Extensions:

06a: Invalid or Incomplete Information

1. System displays an error message indicating the invalid or incomplete information.
2. Actor corrects the information or provides the required details.
3. Return to Main Success Scenario step 6.

Post-Condition: The selected product or workshop is successfully edited by the Actor, reflecting the changes made within the web application.

UC-04: Removing Products and Workshops

Actor: Business, Admin

Pre-Condition: The actor is logged in to the web application and has access rights to remove products and workshops.

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the dashboard or menu option related to managing products and workshops.
3. Actor selects the option to remove a specific product or workshop.
4. System displays a confirmation prompt for the removal action.
5. Actor confirms the removal action.
6. System validates the removal request and proceeds with deleting the selected product or workshop.
7. System confirms the successful removal of the product or workshop.
8. Actor is redirected back to the products and workshops management page or dashboard.

Extensions:

05a: Cancel Removal Action

1. Actor cancels the removal action.
2. Return to Main Success Scenario step 5.

Post-Condition: The selected product or workshop is successfully removed from the system by the actor, reflecting the deletion within the web application.

UC-05: Removing a Product from the shopping cart

Actor: Customer

Pre-Condition: The actor is logged in to the web application and has access rights to manage shopping cart.

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the shopping cart tabpage.
3. Actor selects the option to remove a product from the shopping cart.
4. Actor submits the form or confirms the removal of the product.
5. System validates the submitted information and removes the product from the shopping cart.
6. System confirms the successful removal of the product.
7. Actor is redirected back to the shopping cart management page.

Extensions:

04a: Incorrect or Missing Information

1. System displays an error message indicating the missing or incorrect information.
2. Actor corrects the information or provides the required details.
3. Return to Main Success Scenario step 4.

Post-Condition: The selected product is successfully added to the shopping cart managed by the actor.

UC-06: Removing a Workshop from shopping cart

Actor: Business Owner

Pre-Condition: The actor is logged in to the web application and has access rights to manage shopping cart.

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the shopping cart tabpage.
3. Actor selects the option to remove a workshop from the shopping cart.
4. Actor submits the form or confirms the removal of the workshop.
5. System validates the submitted information and adds the workshop to the shopping cart.
6. System confirms the successful addition of the workshop.
7. Actor is redirected back to the shopping cart management page or dashboard.

Extensions:

04a: Incorrect or Missing Information

1. System displays an error message indicating the missing or incorrect information.
2. Actor corrects the information or provides the required details.
3. Return to Main Success Scenario step 4.

Post-Condition: The selected workshop is successfully removed from the shopping cart managed by the actor.

UC-07: Adding a Product and/or Workshop to the Shopping Cart

Actor: Business Owner

Pre-Condition: The actor is logged in to the web application and has access rights to manage their shopping cart.

Main Success Scenario:

1. Actor navigates to the application.
2. Actor browses products and workshops available for purchase.
3. Actor selects the option to add a specific product and/or workshop to their shopping cart.
4. System adds the selected item(s) to the actor's shopping cart.
5. Actor proceeds to view their shopping cart.
6. Actor reviews the items in the shopping cart.
7. Actor confirms the selection and proceeds to checkout.

Post-Condition: The selected product and/or workshop is successfully added to the actor's shopping cart for purchase.

UC-08: Checking Out

Actor: Customer

Pre-Condition: The actor is logged in to the web application and has items in their shopping cart.

Main Success Scenario:

1. Actor navigates to their shopping cart.
2. Actor reviews the items in the shopping cart.
3. Actor selects the option to proceed to checkout.
4. System prompts the actor to provide shipping and payment information.
5. Actor fills in the required shipping and payment details.
6. Actor confirms the order and submits the payment.
7. System processes the payment and confirms the successful checkout.
8. Actor receives a confirmation message or email regarding the order.

Post-Condition: The actor successfully completes the checkout process, and the order is processed by the system.

UC-09: Viewing Order History

Actor: Customer

Pre-Condition: The actor is logged in to the web application.

Main Success Scenario:

1. Actor navigates to the order history section or dashboard.
2. System retrieves and displays the order history for the actor.
3. Actor reviews the displayed order history.

Post-Condition: The actor successfully views their order history within the web application.

UC-09: Editing Profile

Actor: Business Owner

Pre-Condition: The actor is logged in to the web application.

Main Success Scenario:

1. Actor navigates to the profile settings or dashboard.
2. Actor selects the option to edit their profile.
3. System presents a form or interface for editing profile details (e.g., name, email, password, etc.).
4. Actor makes the desired changes to their profile information.
5. Actor submits the form or confirms the changes.
6. System validates the submitted information and updates the actor's profile.
7. System confirms the successful update of the actor's profile.
8. Actor is redirected back to the profile settings or dashboard.

Extensions:

05a: Incorrect or Missing Information

1. System displays an error message indicating the missing or incorrect information.
2. Actor corrects the information or provides the required details.
3. Return to Main Success Scenario step 5.

Post-Condition: The actor successfully edits their profile information within the web application.

UC-10: Log Out

Actor: Business Owner, Customer, Admin

Main Success Scenario:

1. Actor navigates to the application.
2. Actor accesses the application dashboard or any page within the authenticated area.
3. Actor clicks on the "Log Out" button or link.
4. System processes the log out request.
5. System ends the actor's session and invalidates the session token.
6. System redirects the actor to the login page.

7. Actor receives a confirmation message indicating they have successfully logged out.

Extensions:

04a: System Error During Log Out

1. System displays an error message indicating there was an issue logging out.
2. Actor attempts to log out again or contacts support if the issue persists.
3. Return to Main Success Scenario step 3.

Post-Condition: The actor (business owner, customer, or admin) successfully logs out of the application, and the session is terminated.