

Functional Requirements Specification (FRS)

Project Name: OpenCart

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**1. Project Overview**

The OpenCart e-commerce platform enables users to register, browse products, add items to the cart, and proceed to checkout. The application supports user authentication, product discovery, and order management.  
   
This FRS outlines the functionalities to be tested from a QA perspective, including UI workflows and backend validations.

**2. Functional Modules**

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| Module ID | Module Name | Description |
| FM01 | User Registration | Allows a new user to register with personal details. |
| FM02 | User Login | Enables existing users to log in with valid credentials. |
| FM03 | Product Search | Enables users to search for products by name or category. |
| FM04 | Add to Cart | Users can add one or more products to their shopping cart. |
| FM05 | Shopping Cart Management | View, Verify Product in the cart. |
| FM06 | Checkout & Order Confirm | Users can checkout by entering address and confirming the order. |

**3. Functional Requirements**

**FM01 – User Registration**

* Users must provide First Name, Last Name, Email, Phone, and Password.
* Validation required for mandatory fields.
* Confirmation message upon successful registration.
* Duplicate email should not be allowed.

**FM02 – User Login**

* Login using registered Email and Password.
* Invalid login should display an error.
* Forgot Password link should be present (optional).

**FM03 – Product Search**

* Search bar on home page must accept text input.
* Matching products should be displayed.
* No results should show an appropriate message.

**FM04 – Add to Cart**

* Products should have an 'Add to Cart' button.
* Clicking should increase cart count and show success message.
* Product should be visible in the cart page.

**FM05 – Shopping Cart Management**

* The Product be visible in the shopping cart.

**FM06 – Checkout and Order Confirmation**

* Guest or registered user can checkout.
* Requires billing address, delivery method, and payment method.
* Order confirmation message should be shown after placing the order.

**4. Non-Functional Requirements**

* Application should work on latest versions of Chrome, Edge, and Firefox.
* Pages should load within 3 seconds.
* Form validation messages must be clearly visible and user-friendly.
* UI should be responsive and accessible.

**5. Assumptions & Limitations**

* Payment gateway is simulated; actual transaction is not tested.
* Email/SMS confirmation functionality is assumed to be out of scope.
* APIs are not officially exposed, so API testing will be done using mock endpoints representing business logic.

**6. References**

Base URL: <http://tutorialsninja.com/demo/>