**STP Document**



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**Planned Schedule**

|  |  |  |
| --- | --- | --- |
| A step in the project process | Start date | End date |
| Preparation of STP document | **19.03.2024** | **19.03.2024** |
| Preparation of STD document | **19.03.2024** | **19.03.2024** |
| Tests | **20.03.2024** | **26.03.2024** |
| Presentation | **27.03.2024** | **27.03.2024** |

**Purpose Of This Document**

The purpose of this document is to outline a comprehensive testing strategy for the Otaku House website. It will cover various aspects of testing, including functional and non-functional tests, as well as the schedule and resources required for testing.

1. Accessing a diverse selection of anime and manga merchandise, with options to filter products by platform, genre, and price range.
2. Providing detailed product descriptions, including specifications, dimensions, and materials, to help customers make informed purchasing decisions.
3. Verifying the sorted order of merchandise listings to ensure accurate display and accessibility for users.
4. Managing website configurations such as product categories, pricing rules, and promotional offers through an intuitive administration panel.
5. Utilizing API endpoints to seamlessly integrate with external systems and services, enabling dynamic content updates and enhanced functionality.

**Key Features and Functions:**

**The system is composed of three main layers:**

1. **Infrastructure Layer: Includes modules for making HTTP requests and reading configuration data.**
2. **Logic Layer: Implements the business logic for interacting with the Otaku House endpoints and processing the data.**
3. **Test Layer: Contains test cases to validate the functionalities of the Otaku House website.**

**Glossary and Abbreviations**

**Glossary**

* GUI (Graphical User Interface): The design of user interfaces based on specified requirements.
* Functional Testing: Verification that fundamental system functions operate correctly.
* Maintenance Testing: Examination of the functionality of a modified system following changes, updates, or alterations in the working environment.
* STP (System Test Plan): A comprehensive project planning document encompassing strategy, schedule, and topic tree.
* STD (System Test Design): Detailed documentation outlining the testing plan.
* Traceability Matrix: A document that correlates any two baselined documents that require a many-to-many relationship to determine the completeness of the relationship.

**Abbreviations**

* QA: Quality Assurance
* CEO: Chief Executive Officer
* HR: Human Resources

**Testing Plan**

**Resources:** 1 tester will be assigned to this project.

**Hardware/ Software Needs:**

1. **Computers:** High-performance desktops or laptops to run test scripts and perform manual testing.
2. **Network Equipment:** Routers and switches to simulate different network conditions for testing.
3. **Virtual Machines:** Set up virtual machines for testing on different operating systems and browser combinations.
4. **Operating Systems:** Windows for testing.
5. **Browsers**: Latest versions of popular browsers (Google Chrome, Microsoft Edge, Safari) for cross-browser compatibility testing.
6. **Database Management System:** Database systems (Postman) for testing data handling and retrieval functionality.

Before the start of testing rounds, **functional tests** will be performed, including:

1. **Unit Testing**: To test individual units or components of the Otaku House website.
2. **Integration Testing**: To verify the interactions and interfaces between different components or systems within the application.
3. **Regression Testing:** To ensure that new code or changes do not affect the existing functionality of the website.
4. **API Testing:** To validate the functionality of API endpoints by testing their request-response mechanisms.
5. **UI Testing:** To validate that the user interface elements and interactions function correctly according to the design.
6. **End-to-End Testing:** To evaluate the entire system's functionality from start to finish, simulating real user scenarios and interactions.

Afterwards, the following **non-functional tests** will be conducted including:

1. **Performance Tests:** Assess how well the website performs under various conditions, including heavy loads and stressful situations.
2. **Security Testing:** Ensure the website is secure against vulnerabilities such as SQL injection, cross-site scripting, and unauthorized access.
3. **Compatibility Testing:** Ensure the website works seamlessly across different devices, browsers, and operating systems.
4. **Usability Testing**: Evaluate the user-friendliness and overall user experience of the website to ensure it meets user expectations.
5. **Reliability Testing:** Test the stability and reliability of the website under normal and extreme usage conditions.
6. **Scalability Testing:** Test the website's ability to handle increased workload and user traffic without degradation in performance.

**Starting and exiting Criteria**

* **Criteria for starting the tests:**
* 100% of planned sanity tests were carried out and passed successfully.
* 100% of planned functional and non-functional test cases have been created and reviewed.
* A traceability matrix is established, linking each test case to specific requirements.
* The testing environment is prepared and verified.
* Sufficient and accurate test data for both positive and negative scenarios is available.
* The test plan has been reviewed and approved.
* **Completion/Release Criteria:**
* 100% of planned functional and non-functional tests have been executed, and results have been documented.
* 75% of test cases passed successfully.
* The remaining bugs are at low severity levels, with no high-severity issues affecting functionality.

|  |  |  |
| --- | --- | --- |
| **Test Case ID** | **Test Case** | **Functionalities Covered** |
| 1 | test\_ordering\_product | Ordering Product |
| 2 | test\_update\_profile\_name | Profile Updates |
| 3 | test\_update\_profile\_mail | Profile Updates |
| 4 | test\_update\_profile\_password | Profile Updates |
| 5 | test\_getting\_order\_dietels | Profile Updates |
| 6 | test\_send\_review\_about\_product | Product Reviews |
| 7 | test\_get\_login\_page | User Account Management |
| 8 | test\_login\_user\_to\_account\_valid | User Account Management |
| 9 | test\_login\_user\_to\_account\_invalid\_email | User Account Management |
| 10 | test\_login\_user\_to\_account\_invalid\_password | User Account Management |
| 11 | test\_register\_user\_to\_account | User Account Management |
| 12 | test\_login\_user\_to\_account\_existing\_account | User Account Management |
| 13 | test\_get\_home\_page | Home Page |
| 14 | test\_get\_second\_home\_page | Home Page |
| 15 | test\_check\_searched\_product | Home Page |

**Traceability table**

**1. Ordering Product**

**├── Functional Testing:**

**│ ├── Search for Product by Keyword**

**│ ├── Add Product to Cart**

**│ ├── Proceed to Checkout**

**│ └── Fill Payment Details**

**│**

**└── Non-Functional Testing:**

**├── Validate Successful Order Placement**

**2. Profile Updates**

**├── Functional Testing:**

**│ ├── Update Profile Name**

**│ ├── Update Profile Email**

**│ ├── Update Profile Password**

**│ └── Retrieve Order Details**

**│**

**└── Non-Functional Testing:**

**├── Validate Profile Updates**

**└── Validate Order Details Retrieval**

**3. Product Reviews**

**├── Functional Testing:**

**│ └── Send Review about Product**

**│**

**└── Non-Functional Testing:**

**└── Validate Successful Review Submission**

**4. User Account Management**

**├── Functional Testing:**

**├── Get Login Page**

**│ ├── Login with Valid Credentials**

**│ ├── Login with Invalid Email**

**│ ├── Login with Invalid Password**

**│ ├── Register New Account**

**│ └── Login with Existing Account**

**│**

**└── Non-Functional Testing:**

**└── Validate User Authentication Processes**

**5. Home Page**

**├── Functional Testing:**

**│ ├── Access Home Page**

**│ ├── Access Second Home Page**

**│ └── Search for Product**

**│**

**└── Non-Functional Testing:**

**├── Validate Successful Retrieval of Home Page**

**├── Validate Successful Retrieval of Second Home Page**

**──Validate Correct Product Search Results**