**Test Plan for Book Cart Project**

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**INTRODUCTION**

The test plan provides a detailed framework for all testing activities related to the BookCart website project, specifying the scope, strategy, resources, and schedule. It will delineate which components will undergo testing, the specific functionalities to be evaluated, the different testing approaches to be utilized, the team members tasked with the testing responsibilities, the resources and timelines needed to fulfill the testing objectives, and the potential risks inherent to this testing strategy.

1. **TEST STRATEGY**
   1. Scope of Testing

| **Module Name.** | **Applicable Description** |
| --- | --- |
| **Account Management** | Detailed verification of registration, login. |
| **Search Functionality** | Comprehensive testing of search algorithms, including accuracy of search results, relevancy ranking, and the functionality of advanced search filters such as categories, author names, and price ranges. |
| **Product Pages** | Checks of product page elements including the correctness of book information, image loading, responsiveness of the layout |
| **Shopping Cart and Checkout** | Exhaustive testing of cart operations including add-to-cart, quantity adjustments, delete item. Checkout process testing will include form entry, form validation. |
| **Order Management** | Testing of order tracking systems, history logging. |
| **Wishlist** | Thorough examination of wishlist features including the ability to add items to the wishlist, manage wishlist items, and check the availability of wishlisted items. Testing should ensure users can easily navigate to their wishlist, move items to the cart, and save items for later. |

* 1. Test type
* **Integration Testing**: Conduct tests to ensure that different modules of the application interface correctly with each other and function as a cohesive unit.
* **System Testing**: Perform full, end-to-end tests on a complete version of the application to ensure it behaves as expected in a production-like environment.
* **Usability Testing**: Facilitate sessions with potential users to gather feedback on the website's ease of use and identify any pain points in the user interface.
* **API testing:** Test all the APIs create for the software under tested.
  1. Risk and Issues

| Risk | Mitigation |
| --- | --- |
| Inadequate Skills among Team Members for Website Testing | Plan training course to skill up your members |
| Tight Project Schedule | Prioritize testing activities to meet project deadlines effectively.  Define project scope upfront, emphasize thorough project planning, and implement continuous progress monitoring and measurement. |

1. **TEST OBJECTIVE**

* Functionality: Validate every user action and system response meticulously
* Reliability: Confirm system stability and error recovery processes, ensuring that the application can handle unexpected user behaviors and system faults.
* Usability: Determine the website's intuitiveness, accessibility, and conformance to user experience best practices.

1. **TEST CRITERIA**
   1. Suspension Criteria

· **Critical Bugs**: Define a threshold for the number and severity of bugs that would necessitate a halt in testing

* 1. Exit Criteria
* **Coverage Metrics**: Establish code coverage benchmarks and ensure that all critical paths and user scenarios have been thoroughly tested.
* **Defect Backlog**: Set targets for defect resolution, categorizing issues by severity and resolving all blockers and critical defects prior to release.

1. **Test Scenario**

* User registers an account
* User login to the system
* User search for a product
* User adds the product to the wishlist
* User adds product to cart
* User makes an order

1. **TEST ENVIRONMENT**

* Operating system: Mac OS Ventura 13.5
* Testing tools
* Cypress version 13
* Postman version 10.19.14
* Browsers: Chrome

1. **PROJECT MILESTONES**

| **No.** | **Task** | **Start date** | **End date** |
| --- | --- | --- | --- |
| 1 | Test plan | 14th Nov 2023 | 17th Nov 2023 |
| 2 | Test cases | 18th Nov 2023 | 25th Nov 2023 |
| 3 | Execute test cases | 26th Nov 2023 | 29th Nov 2023 |
| 4 | Test report | 30th Nov 2023 | 2nd Dec 2023 |