Test Plan

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| Project Name | Sauce Labs |
| Author | Rupali Kokate |
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| --- | --- | --- | --- |
| Approvals | | | |
| Name | Title | Signature | Escalation |
| Richard Suller |  |  |  |
| Katie Jones |  |  |  |

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# OBJECTIVES

In this document of the Test Plan for the Sauce Labs Website. Sauce Labs is a demo e-commerce site that allows users to log in, browse products, add items to a cart, and complete the checkout process. While interacting with the website, I noted several core features, including user authentication, product listing, cart management, and checkout functionality.

An objective for a round of Integration Testing might be “To test the functionality exercised by one part of the system does not cause conflicts or issues elsewhere in the system.”

An objective for a round of System Testing might be “To ensure that the products functionality performs as of the User requirements and Technical design Documents”

# SCOPE

The features and functionality of Sauce Labs, that will be tested such as user interface, checkout process, search functionality and browser compatibility.

The Types of testing that will be performed such as Manual Testing, Automated Testing.

The environments in which testing will be conducted such as different browsers, Operating systems.

## In Scope

This section details the features within the scope which are to be tested.

Types of Functional Tests:

Input Validation Testing- Ensure that all input fields, especially for user authentication, validate user input correctly (e.g., checking for valid email formats, minimum password lengths).

User Flows Testing- Test the entire user journey, from login to checkout, ensuring smooth transitions and expected behaviours at each step.

Boundary Testing- Test edge cases, such as maximum and minimum values for input fields, particularly for numeric inputs like quantities.

Error Handling- Verify that appropriate error messages are shown for invalid operations (e.g., wrong password, adding more items than available).

& End to End Testing- Verify that website work as per user required end to end from login to ordering product.

These types of tests prioritize user experience and ensure that critical functionalities are robust. Input validation and user flows directly impact user satisfaction, while boundary and error handling tests help catch potential issues before they affect users.

**Tools/Frameworks for Automation**

* **Selenium WebDriver:** For browser automation, as it supports multiple browsers and is widely used for functional testing.
* **Cucumber (BDD):** For organizing and running tests in a structured manner.
* **Maven:** For dependency management and building the project.
* **Jenkins:** for Continuous integration and Continuous development.
* **Visual Studio:** it is fastest IDE for productivity.

## Out Of scope

This section details the out of scope which are not to be tested.

* Additional tasks or changes to the requirements.
* Changes in deadlines.
* Anything not explicitly mentioned in the original scope document.
* Mobile Testing

# TEST APPPROACH

A description of how to test the product should be included here. This will vary from project to project and is something that should be included in all test planning.

The first step is to create test scenarios and test cases for the various Features In scope.

While developing Test cases we will use several test design techniques.

* Equivalence Class partition
* Boundary value Analysis
* Decision Table Testing
* State Transition Testing
* Use case Testing

We also use our Expertise In creating Test Cases by applying the below:

* Error Guessing
* Exploratory Testing
* Utilize Selenium for automated testing scripts.
* Execute tests on Sauce Labs’ cloud infrastructure for real-device and browser testing.
* Implement parallel test execution to optimize testing time.

First, we will conduct smoke testing to see if the various and important functionalities of the application are working. We reject the build if the Smoke testing fails and wait for the stable build before performing the depth testing of the functionalities.

We will follow the below best practices to make the testing better:

**Context driven testing-** we will be performing Testing as per the context of the given application.

**Shift Left Testing**-We will start testing from beginning stages of the development itself instead of waiting for the stable build.

**Exploratory Testing** -using our expertise will perform exploratory testing apart from the normal execution of the test cases

**End To End Testing**- we will test the end-to-end scenario which involve multiple functionalities to simulate the end user flows.

# TEST ENVIRONMENT

This section describes the hardware, software and permissions that are required to undertake the planned testing.

* The operating systems and version that will be used for testing, such as windows 10, macOS, or Linux.
* The browsers and versions that will be tested, such as google Chrome, Mozilla Firefox, or Microsoft edge.
* The network connectivity and bandwidth that will be available for testing such as Wi-Fi or Wired Connections.
* The access permissions and roles of the team members who will be using the test environment such as testers, developers or stakeholders.
* CI/CD integration with tools like Jenkins, Maven.
* Java Selenium WebDriver Eclipse and Cucumber installed.

|  |  |
| --- | --- |
| ***Name*** | ***Env URL*** |
| *QA* | *https://www.saucedemo.com/v1/index.html* |
| *Pre-Prod* | *https://www.saucedemopreprod.com/v1/index.html* |
| *UAT* | *https://www.saucedemouat.com/v1/index.html* |
| *Prod* | *https://www.saucedemoprod.com/v1/index.html* |

# TEST DATASETS

This section details data sets to be sued and any additional data requirements – especially for new functionality.

|  |  |
| --- | --- |
| **Accepted usernames are** | **Password for all users:** |
| standard\_user | secret\_sauce |
| locked\_out\_user |  |
| problem\_user |  |
| performance\_glitch\_user |  |

# TEST SCHEDULE

This section outlines the major dates associated with this plan – it is not a project plan but gives readers the testing milestones.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Milestone Task - Phased Plan*** | ***Effort (Days)*** | ***Start Date*** | ***End Date*** |
| *Test Plan Sign off* | *1* | *28/10/24* | *28/10/24* |
| *Test Design* | *2* | *29/10/24* | *31/10/24* |
| *System Testing* | *6* | *1/11/24* | *8/11/24* |
| *Automation Testing* | *5* | *11/11/24* | *15/11/24* |

# TEST DELIVERABLES

All work products will be subject to a review - either peer review or formal inspection. It is expected that peer review will be sufficient for most testing work products.

|  |
| --- |
| ***Deliverables*** |
| *Test Plan* |
| *Test Design* |
| *Test Report Automation* |
| *Test Report Manual* |
| *Defect reports* |

# DEFECTS

This section highlights how defects found during testing are to be classified and managed.

a bug's severity refers to its impact on the functionality of the software. Priority determines the order in which teams should address the bugs.

Any **defects** identified during testing will be logged in Jira and Classification of defects by severity will be as follows:

|  |  |
| --- | --- |
| ***Priority*** | ***Severity*** |
| *P1 – High (Fix Immediately)* | *1 – High* |
| *P2 - Medium (To be fixed)* | *2 - Medium* |
| *P3 – Low (Being considered)* | *3 – Low* |

# ENTRY/EXIT CRITERIA

### Entry Criteria

* *System Testing Test Plan has been ‘Signed Off’ by all requested parties*
* *Successful Build of the Platform produced and installed in the SIT environment.*
* *SIT Test Scenarios have been created for the Release*
* *SIT Test Data has been sourced and prepared as required*
* *SIT Resources have been scheduled have been identified*

### Exit Criteria

The following exit criteria have been defined for exit from the System Testing Phase.

* No outstanding BTRs (Barriers to Release). Any high priority defects that are still in place are subject to examination by the Change Control Board.
* All outstanding Defects to be documented and the information made available
* System Testing has been ‘Signed Off’ by All the stakjeholders.

# ROLES & RESPONSIBILITIES

This section details the expected workload to be undertaken by the test team and project members required to support the test function. Any additions or modifications will be discussed with the Project Manager.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Staff Name:*** | ***Role:*** | ***Deliverable*** | ***Responsibility:*** |
| *Rupali Kokate* | *Lead System Tester* | *Test Plan*  *Test Schedule*  *Test Estimates*  *Test Design*  *Test Execution*  *End of Test Report* |  |
| *Rupali Kokate* | *Automation Tester* | *Automated Test cases* |  |
| *XXX* | *Software Developer* | *Support System Test as necessary* |  |
| *XXX* | *Business Analyst* | *Support Test as necessary* |  |

# RISKS & CONTINGENCIES

This section details any risks and contingences for the testing (as against the overall project)

|  |  |  |
| --- | --- | --- |
| *Risk Or Issue* | *Risk Level* | *Likely Effects And Mitigation* |
| *Insufficient time for testing to be complete* | *High* | *Test coverage may not meet exit criteria. Focus testing on critical and high risk areas as defined by Cross Dependencies matrix and risk analysis.* |
| *Testers not available* | *High* | *Liaison with Project teams and departments to ensure products are ready for testing as scheduled.* |

# SIGN OFF / APPROVALS

All test plans are subject to sign-off – people within the programme should know how their products are going to be tested, and agree with the planned action. If not they should raise their issues and have the plan changed, if not their objections must be recorded.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Name:*** | ***Appointment:*** | ***Approval Signature:*** | ***Signatory Remarks:*** |
|  | *Project Executive* |  |  |
|  | *Product Manager* |  |  |
|  | *Release Manager* |  |  |
|  | *Project Manager* |  |  |
|  | *Test Manager* |  |  |
|  | *Business Analyst* |  |  |