Test Plan Document

For

Quipu

**Summary**

**Context**

This test plan is relevant not only for Automation Practice application but for all projects contributing to the **Quipu**.

**Testing guideline reference**

Refer:

This is a list of all systems, documents (specifications, legal documents) etc. used in this document and the project.

|  |  |  |
| --- | --- | --- |
| **Abbreviation** | **Document/** **System** | **Link** |
| BRD | Business Requirement Document | Confluence link |
|  |  |  |

**Quality Team Stakeholders:**

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Approver/** **Contributor** |
| TBH | Product Manager | Approver |
| Basheer | Test Manager | Approver |
| Jijo | Test Lead | Contributer |
| TBH | Test Automation Analyst | Contributer |
| TBH | Test Specialist | Contributer |
| TBH | Test Analyst | Contributer |

**Testing roles and responsibilities:**

|  |  |
| --- | --- |
| Rolle | Responsibilities |
| Test Manager | * Developing test strategies for regression team * Coordinating test automation activities between multiple product teams and the regression team * Participate in daily standups, refinements, retrospectives * Prepare Test Summary regression report for Sprint releases * Functional Test Execution & capture Test Results in JIRA * Preparation and participation of PI Planning * Log Defects & Retesting |
| Test Analyst | * Participate in daily standup, refinement, and retrospectives * Reviewing and analyzing functional and Non-Functional requirements * Estimating testing efforts * Designing Functional Test Cases with automation in mind * Update automation test cases * Functional Test Execution & capture Test Results in JIRA * Log Defects & Retesting * Prepare Test Summary report * Participation in PI Plannings |
| Tester | * Participate in daily standups, refinements and retrospectives. * Designing Functional Test Cases * Functional Test Execution in Test and PreProd * Capture Test Results in JIRA/Confluence * Support automation regression team * Execute automated regression tests and analyze results * Log Defects & Retesting * Participation in PI Plannings |
| Test Specialist | * Maintain automation framework based on functional development for each Sprint release * Maintain automated execution on DevOps pipeline (overnight runs on SIT and PRE env) * Run automated regression for Sprint release (full suite) and adhoc requests (Sanity tests) * Update and extend automation framework based on innovation * Participate in daily standups, refinements and retrospectives. * Capture Test Results in JIRA/Confluence * Participation in PI Plannings * Log Defects & Retesting |

**Scope**

**In-scope**

The high-level functional elements in scope for testing (incl. responsibilities) can be found here:

* Create Account Functionality
* Browse Products functionality
* Add to the cart Functionality
* Checkout products Functionality
* Complete E2E Functionality to order a product

Further requirements and testing will be refined as we move forward. Each new functionality will be added to the list above.

The non-functional scope consists of:

* Security Testing

**Out-of-scope**

Currently not part of initial scope:

* Non-functional Testing (Performance testing)

**Feature Test**

The Feature Tests are done as part of the development on Pull Request (PR) level. Here the tests are executed on a test environment that in not fully integrated test environment. The focus is to check if the development meets the acceptance criteria.

**Integration Test**

The first level of testing the Feature integration is done on UAT env. Here all Features are constantly integrated into the general code base.

Because of the constantly changing code base a second level of Feature integration testing is done as part of the Acceptance / E2E Testing.

**Acceptance / E2E Regression Test**

At the end of each sprint a new UI release is created based on the integrated code on SIT and loaded on the PreProd env.

Afterwards each Product team and the Regression team have 3-4 days to execute all Feature tests and a full regression on all features and the UI in general. During this time period the execution progress as well any issues are discussed in a daily at 8:45 am TUE – FRI.

The focus of the Acceptance tests is not only the feature itself but a complete E2E integration test. In addition, the test platform is not only the different web browsers but also the different apps and mobile versions

The goal of this test level is to deliver a UI version that can be loaded to Production.

In an Acceptance meeting with all POs, PMs, Ops and the regression team the Monday after the release load it is decided if the release can go live or not.

**If yes** – the Release team on Monday afternoon will be asked for the permission to load and activate the release on Tuesday.

This decision includes balancing between the acceptance criteria and the necessity to take certain features live. It therefore can happen that a version goes to Production if even some features are not fully meeting their Definition of Done.

**If not** – it will be decided which showstoppers (Prio 1 defects found during release testing) need to be fixed for the release to go live and if they can be fixed until Wednesday evening the latest. The Bugfix release will be created on Thursday and some final regression and bugfix tests performed until Monday the latest with the goal to ask the Release team for the permission to load and activate the release on Tuesday.

A decision can also be not to take the release to Production if either the showstoppers cannot be fixed on time or the regression test of the Bugfix release failed.

**General Test Rules for each Test Level**

**Entry criteria**

* Availability of testable requirements
* Availability of test items that have met the exit criteria for any prior test levels
* Availability of test environment
* Availability of necessary test tools
* Availability of test data and other necessary resources
* The system configurations to test the features are set up.

**Suspension criteria**

* Unavailability of test environment or unstable test environment
* Build failure or functionality not working
* Bug in software and has a Blocker/Prio 1 bug

**Resumption criteria**

* Stable build on which functionality is working
* No Blocker/Prio 1 bug

**Exit criteria**

* Planned tests have been executed
* A defined level of coverage (e.g., of requirements, acceptance criteria, risks, code) has been achieved
* The number of unresolved defects is within an agreed limit per severity/priority.
* For the remaining defects, a resolution plan is agreed
* All test results are documented in JIRA
* For remaining defects with any kind of operational or business impact agreed workarounds are available and OPS team is informed

**Test infrastructure and tools**

**Test environments**

The following environments are available for testing:

| **Environment** | **Purpose** |
| --- | --- |
| DEV | * Environment to test Feature implementation independent from other developments * It is only accessible for developers or testers from Product team |
| SIT | * This a continuous integration environment without a stable code base. * Here the integration tests are done on a release package. |
| PRE | * This environment is called **PreProd** * The focus here is to test the new UI with the PROD setup which can be different from the SIT environment * Only a limited amount of integration tests are done as a Production credit card has to be used. |
| PROD | * External real PROD environment available for end users * On this environment Regression tests will be performed by the test team after the release. |

**Test tools**

The following tools will be used:

* **JIRA:** used to raise defect for Automation Practice application
* **Confluence:**used to store all test relevant documentation, e.g., test plan
* **Test Automation**: Selenium for web automation, Browser stack & Appium for mobile automation, Jenkins

**Test data**

* All Test data will be created as part of the test cases.

**Defect Management**

The project mainly follows the Quipu test strategy for defect management.