**Project: “Internet Based DTS” (IDTS)**

**Ver\_1.0 23/08/2022**

**Test Strategy**

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# Scope and Overview

**Overview:-**

* Banca Valla had decided to design and develop an internet based DTS
* The system was to provide functionalities to the following categories of users.

The Testing Tasks that the Test Team will deliver cover the following scope:

**In Scope:**

# Functions to be tested

* Ability to register as a customer for the internet derivative trading service
* Ability to view derivative prices online in the form of a price ticker
* Ability to place orders to buy and sell selected derivatives
* Ability to place stop loss / book profit orders
* Ability to place time driven orders
* Ability to view the balance of derivatives in their derivative account
* Ability to view the cash balance in their trading account
* Ability to view the history of transactions for the last n months
* Ability to cancel placed orders prior to their execution
* Ability to send derivative trading related queries to manager and members of derivatives trading division

**Out Scope:**

# Functions not to be tested

* Ability to place a customer on hold after which the customer would not be able to continue to trade
* Ability to release a customer on hold
* Ability to close a customer account and remove the customer from the customer list of the system and the bank
* Ability to generate customer trading details including payment track record

# Test Approach

* Banca Valla has understood that we need to perform Functional Testing of all the functionalities mentioned in the above Scope section.

**Step 1:** As part of Functional Testing, we will follow the below approach for Testing:

1. Requirement analysis.
2. Software testing planning
3. Test case development
4. Environment setup
5. Software test execution

**Step 2:** Types of testing:-Smoke testing, sanity testing, regression testing, re-testing, Exploratory Testing.

**Step 3:**

* Levels of testing: Unit Testing, Integration Testing, System Testing, System
* Integration Testing, UAT
* Types of Functional Testing: Unit Testing, Integration Testing, Smoke Testing,
* System Testing, UAT and Regression Testing.
* Types of Non- Functional Testing: Performance, Security and Compatibility.
* Testing the functionality of all modules in the website by Functional testing.
* We will use smoke testing for critical features like Login and logout feature, Orders Feature Transaction feature, Trading feature, Accounts Feature, Language Feature and Communication Feature.

## Test Phase Entry Criteria

Before Test Items are made available for the Test Team to test it’s expected that:

* The *Test Item Transmittal Report* will be completed
* All test tools are available and test infrastructure are available for use during testing
* All Test Items are development complete
* The correct versions of the code have been deployed to the correct test environments
* Sanity and Unit tests have been completed successfully to demonstrate readiness for test

## Test Phase Exit Criteria

For the Test Items to exit testing the following conditions will have to be met:

* The Test Summary Report will be completed.
* All planned testing activities has been completed to agreed levels.
* All high priority bugs have been fixed, retested and passed.
* No defects must be left in an open unresolved status.

## Roles and Responsibilities

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Roles | Responsibilities | Duration |
| Sakshi | Tester | Login and logout feature | 1 Week |
| Alok | Tester | Orders Feature | 2 Week |
| Abhishek | Tester | Transaction feature | 2 Week |
| Neeraj | Tester | Trading feature | 2 Week |
| Sourabh | Tester | Accounts Feature | 3 Week |
| Sai Kiran | Tester | Language Feature | 1 Week |
| Chander Prakash | Tester | Communication Feature | 1 Week |

# Test Environment

**Software Configuration:**

* + Operating System: Windows 10
* The IDTS customers would access the application using browsers. Expected distribution of browsers that would be used by customers are :
* IE – 45 %
* Mozilla – 35 %
* Netscape – 17 %
* Eudora – 3 %
* The IDTS is to be developed using database DB, application server APPS and programming platform PROG.

**Hardware Configuration:**

* + Processor: i5 10th Generation
  + Ram: 8 GB
  + Hard Disk: 512 GB SSD

# Testing Tools

**Testing tools using in this project:**

* 1. Issue Tracking Tool (JIRA)
  2. Test Management Tool (Zephyr)
  3. Performance Testing Tool (Jmeter)
  4. Automation Tool (Selenium)
  5. Defect Management Tool (Bugasura)
  6. Security Testing Tool (Burp Suite)

# Release Control

* Test execution for all modifications in that release will be ensured by a release management plan with suitable version history.
* Different software versions in test and UAT environments can occur from unplanned release cycles.
* Set build management process which will answer – where new build should be made available, where it should be deployed, when to get the new build, from where to get the production build, who will give the go, the no-go signal for production release, etc.
* Banca Valla wants to launch this system in 3 months.
* Meanwhile the project even though the estimates reveal that it would take 5 months to complete this system with all the identified functionality.

# Risk Analysis

|  |  |  |  |
| --- | --- | --- | --- |
| **S no** | **Risk** | **Mitigation Strategy** | **Impact** |
| 1 | Delays in delivering completed Test Items from Development would impact test timescales and final Release quality | Product Management and Development to advise of any delays and adjust Release Scope of Resources to allow the test activities to be performed. | High |
| 2 | Delays in the turn around time for fixing critical bugs, which would require re-testing, could have an impact on the project dates. | Strong management of bug resolution would be required from Development to ensure bugs are fixed and available for re-testing in the scheduled time. | High |
| 3 | The Test Team, Development or PM teams require domain guidance from one or the other and they are not available. This would delay project activities. | The Test Team, Development and PM teams to ensure they are available at critical points or contactable during the project activities. | Medium |
| 4 | Features of Test Items will not be testable. | The Test Team will record untested features and request the PM to assess business risk in support of the release of untested features. | Low |
| 5 | Unexpected dependencies between Test Items and service components are encountered that require revision of Test Scenarios and related Test Cases. | Information about dependencies is updated and communicated promptly to allow timely revision of Test Scenarios and Test Cases | Low |

# Review and Approvals

All these activities are reviewed and sign off by the Test Manager, Business team, Project management, Development team etc.

* We will send these documents for Product owner Approval like below:
* Test Scenarios
* Test Cases
* Test ideas
* Test charters
* Reports (test execution report, defect report, test summary report, test report)

The following people are required to approve the Test Strategy:

|  |  |
| --- | --- |
| **Approval By** | **Approval** |
| Test Manager | Tarun Reddy |
| The Test Department Manager | TM |
| Product Owner | Banca Valla |
| Development Manager | DM |
| Project Manager | Tarun Reddy |