**Test Plan Document**

Project Name:- Internet-based DTS

**Contents:-**

**1. Overview.**

**2. Objectives.**

**3. Scope**

**4. Test Approach.**

**5. Test Environment**

**6. Testing Tools**

**7. Schedule**

**8. Test Criteria**

**9. Risk analysis**

**10. Release Control**

**11. Review & Approval.**

1. **Overview:-**

* As part of the project, ‘Internet Based DTS’ and Banca valla decided to test a few functionalities of the ‘Internet Based DTS” web application.
* This document serves as a high-level test Strategy document with details on the scope of the project, test schedule and resource requirements, test deliverables, and schedule.

1. **Objective:-**

* The objective of the Test Plan is to define the scope of the testing, schedules, and deliverables of the Project.

1. **Scope:-**

The scope of the project includes testing the following features of the ‘Internet Based DTS web application.

**In Scope:-**

* **Administrators:-**
* Ability to setup access rights to various parts of this application for other classes of users
* **Manager and members Page Features are used Regularly**.
* Approve registered users for providing them access to the site
* Ability to setup the transaction limits for each customer based on the customer’s credit assessment and past performance record
* Ability to set up the customers in terms of whether they are allowed to deal in international derivatives or not
* Ability to set up commission rates for domestic derivatives, the commission rate for domestic derivatives, commission rates for transactions settled within the same transaction period, graded commission rates for various levels of trading volumes
* Ability to prepare and send messages to a customer
* Ability to prepare and send messages to groups of customers
* Ability to generate a register of transactions during a given period
* Should not have access to view the stop loss/book profit orders
* Should not have access to view time-driven orders
* Ability to print a transaction record along with a duplicate copy of all successfully executed transactions
* **Customers Page:-**
* 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 before their execution
* Ability to send derivative trading-related queries to the manager and members of the derivatives trading division
* Ability to send queries/suggestions on the internet-based system to the system administrator
* Ability to log in to the system
* Ability to log out of the system
* Ability to set preferences in terms of bank’s products, receipt of mailers, ….
* Ability to set x, y, and z aspects of the user interface based on their preferences

**Out scope:-**

* 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 a payment track record

1. **Test Approach:-**

* As We understood that we need to perform Functional Testing of all the functionalities mentioned in the above Scope section.
* As part of Functional Testing, we will follow the below approach for Testing:

**Step 1** – Creation of Test Scenarios and Test Cases for the different features in scope.

* We also use our expertise in creating Test Cases by applying the below:
* Error Guessing
* Exploratory Testing
* We prioritize the Test Cases

**Step#2 –**As part of the Testing, we will perform the below types of Testing:

* Smoke Testing and Sanity Testing
* Regression Testing and Retesting
* Usability Testing, UI Testing, and Accessibility Testing

**Step 3:-**

**Levels of Testing:**- Integration Testing, System Testing, System Integration Testing. This Testing is Done in the Particular application.

# **Roles/Responsibilities:-**

|  |  |  |
| --- | --- | --- |
| Name | Role | Responsibilities |
| Sivanesh | Team Leader & Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |
| Indu Rani | Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |
| Madhavi Latha | Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |
| Srinath | Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |
| Vamsi | Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |
| Suresh | Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |
| Dipak | Test Engineer | * Create the Test Strategy and Test plan * Create Test cases, Test scenarios, and Test ideas * Create Defect Reports |

1. **Test Environments:-**
   * Windows
   * Linux
   * Mac

* **Staging Environment:-** The code is hosted in a server to make it the Real Production Environment, where the actual testers performing testing will happen.
* Builds and Staging environment
* **Production Environment:**- This is the live environment where the end users are accessing the application.
* Any issues in this environment is the result of bad testing and will result in bad situations for testers.
* An audit trail of all transactions as well as the actual transaction records themselves must be available for a period of 12 years. They must be available in archives for a further period of 12 years before they can be destroyed.
* The system should receive a live feed provided by the national stock exchange to display the derivative price-related information to the customers
* The system should use the information from the user security management system at the time of user login to determine the validity of the user’s login details
* The system should interface with the bank’s core banking module to give effect to the financial transactions
* The system should interface with the bank’s demand management system to give effect to the derivative related transactions
* The system should interface with the DTS of NSE on a real-time basis to place orders and obtain details of their execution status. These can be performed asynchronously
* The system should handle the various types of orders appropriately viz., regular orders, stop loss orders, and time-based orders
* A newer version of this system is expected to be installed by NSE in the next x weeks
* The users of this system are expected to have past hands-on experience in using internet-based systems, specifically trading systems

A user session with no activity for more than 3 minutes must be terminated (after providing a warning at the end of 2 minutes and 30 seconds).

1. **Testing Tools**:-

* The following is the list of Tools we will be using in this Project:
  + Word and Excel documents
  + JIRA Tool For Project Management and Defect Management
  + Test management tool for test execution (zephyr).

1. **Schedule:-**

|  |  |  |
| --- | --- | --- |
| Build No | Start Date | End Date |
| Build No 1.10 | 14-8-2022 | 14-10-2022 |
| Complete Build | 14-8-2022 | 14-12-2022 |

1. **Testing Criteria:-**

**Entry Criteria:-**

* + Requirements specification Document.
  + Test Plan
  + Test Cases Document

**Exit Criteria:-**

* Completion of Planned Test case’s Execution.

**9. Risk analysis:-**

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Risk | Mitigation | Status |
| 1. | Late requirement changes and missing specific requirements | We will review the requirement specification document several times to avoid missing anything. | Medium |
| 2. | We may get negative feedback regarding the quality of the application from users, clients, and management. | Checking the functionalities of the application based on the requirement. | Medium |
| 3. | The availability of real users for reviewing the application. | Planning to get real users available before the application gets into the final phase of testing. | Low |

**10. Release Control:-**

* Delays in the turnaround time for fixing critical bugs, which would require re-testing, could have an impact on the project dates.
* Test execution for all modifications in that release will be ensured by a release management plan with suitable version history.

**11.Review & Approval:-**

* 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).