**Internet based DTS (IDTS)**

**Test Strategy**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Author | Description |
| 2-11-2021 | 1 |  | System to should provide functionalities for the following categories of user |
|  |  |  | 1.Regular User |
|  |  |  | 2.occasional User |
|  |  |  | 3.End User |

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# Scope

* Review the document - Eesha
* Document approval - Afreen & Pooja
* Testing activities carried out with timelines - Radhika & Asfiya

What to be tested?

* 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 setup commission rate for domestic derivatives, 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

# Test Approach

**Process of testing**

**Requirement Analysis** (refers to the step where the Software Testing Lifecycle begins. Here, the testing team tries to evaluate the requirements of testing and outline which of the given requirements they can test.).

**Software Testing Planning** (The main goal of this procedure is to outline effort and cost estimates for your project. Managers can prepare the test plan for different types of software testing, select which testing tool is optimal, and evaluate effort estimation. At the same time, they need to assign responsibilities and roles to their team.).

**Test Case Development** (results in the creation of test cases and their corresponding scripts. The test team needs to create, verify, and remake specific test cases, based on specific features and their requirements.).

**Environment Setup**( The testing team is required to set the testing environment completely and check the readiness of the testing environment ([smoke testing](https://performancelabus.com/smoke-testing-ultimate-guide/)).This means that the testing team must have knowledge of the architecture, software, and hardware specifications of the environment.).

**Software Test Execution** (testers carry out testing according to the test plans and test cases created by the team.).

**STLC Closure** (The goal of this phase is to give feedback about any bottlenecks faced during the software process and establish best practices for projects of similar requirements.).

### Testing levels

### Unit Testing, Integration Testing, System Testing, Acceptance Testing.

**Roles and responsibilities of each team member**

## 1.Test manager:

The role of test manager is optional. The test manager is hired when there are many testing groups. The number of testers and testing groups depends on the software testing workload. The test manager has below major roles:

* prepares test strategy
* prepare the test budget
* define test levels and test cycles
* develop strategy for estimating test effort
* develop strategy for test documentation, metrics and reporting
* guides and controls the testing teams
* co ordinates with the test leaders and project manger
* gathers the updates on testing progress
* identify the risk and priorities for testing
* design the testing approach, procedures  and techniques
* identify, evaluate and choose the [testing tools](https://www.h2kinfosys.com/blog/software-testing-using-testing-tools/)
* set the strategy on the automation testing
* co ordinate with other teams for software releases

## 2.Test leader:

The testers group can comprise of entry level testers, senior testers, performance testers, automation testers and testers performing specific tests. The roles and responsibilities of a typical tester are listed below:

* gather the test requirements
* review the project documents to understand the requirements and identify the errors
* assist the test lead to prepare the test plan
* create the test documents like traceability matrix, test data and test cases
* set up and verify the test environment
* test the software at different levels and record the results
* identify, report and track the defects
* co ordinate with developers to ensure the defect fixing process
* automate the tests
* provide test support
* develop the test specifications, conduct the test and record the results for the different items of the software
* participate in the review meetings
* assist the users in UAT
* provide the test updates to test lead
* provide the learning experience during the project and document it

**Types of Testing**

* **Load testing**: Ability to setup the transaction limits for each customer based on the customer’s credit assessment and past performance record
* **Security testing**: Approve registered users for providing them access to the site
  + - * Should not have access to view the stop loss / book profit orders
      * Should not have access to view time driven orders
* **Performance testing**: Ability to prepare and send messages to a customer

**Testing approach & automation tool if applicable:** The IDTS is to be developed using database DB, application server APPS and programming platform PROG.

# Test Environment

* Approve registered users for providing them access to the site
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**Setup required for each environment**

* The IDTS is to be developed using database DB, application server APPS and programming platform PROG.
* 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 %

**Backup of test data and restore strategy**-Database DB

# Testing Tools

Automation and Test management tools needed for test execution

* Testing Tool-Selenium
* Backend Tool-SoapUI
* Performance Tool- J meter
* Test management tool-Jira(Zephyr squad)

# Release Control

* Release management plan with appropriate version history that will make sure test execution for all modification in that release
* The version 1 of the system will be launched in 3 months having all prioritised functionalities.
* The estimates reveal that it would take 5 months to complete this system with all the identified functionality

# Risk Analysis

List of risks that are identified

* No access to unregistered users.
* Cancelation of the order failure.

Give a clear plan to mitigate the risks also a contingency plan

* If the user enters by invalid Id then the page should not proceed further.

# Review and Approvals

* All these activities are reviewed and sign off by Afreen, Pooja, Radhika, Eesha, and Asfiya.
* Summary of review changes should be traced at the beginning of the document along with approved date, name, and comment