**Test Strategy Documentation**

**Test Objectives**:

* To design and develop an IDTS database DB, Application Server APPS.
* To provide Functionalities to different categories of User.

What are we testing?

* To test the overall system and design of all modules of the applications.
* Functional Testing- To test overall functionality of all the modules i.e., registration, log-in/log-out, creating trade transaction.
* Web Based Testing- On various platforms like Mozilla, IE, Eudora & Netscape.
* Test the application on various environments like Pre-production and Production.

**Test Assumptions:**

* To develop a simple and user friendly interface for trading purposes**.**
* Should work in all the Web based platforms [IE, MOZILLA, NETSCAPE, EUDORA]
* Should be available for updating in x week.
* To ensure security of customers i.e., if a user session with no activity for more than 3 minutes must be terminated.

**Test Principles:**

* Documentation provided should be verified.
* The functionalities of system should be validated by providing proper test cases for execution.

**Data approach:**

* System should interface with the bank’s core banking module to give effect to the financial transactions.
* system should interface with the bank’s demat management system to give effect to the derivative related transactions.
* before it would be allowed to interface with the NSE’s systems (both live and test), the system must pass an information security assessment.
* NSE would provide access to its test systems.

**Scope of Testing:**

**Functional:**

* All the functionalities such as Registration, log-in/log-out, live feed provided by NSE.
* Interface between the Application and the NSE server along with Bank Servers are necessary for payment transactions.
* Should be compatible with all the browsing platforms.
* IDTS database should be developed using database DB, Application server APPS and Programming platform called PROG.
* The Servers must be available 24/7 along with maximum security functionalities.

**Performance:**

* All UI screens are expected to demonstrate a performance of less than 5 secs.
* A user session to be tested for termination if no activity in 3 minutes.
* The system is expected to have a maximum concurrent user load of x users.

**Security:**

* To be tested for security of all the sensitive data provided by end users.
* A user session to be tested for termination if no activity in 3 minutes.
* Transaction between the IDTS application and Financial Transaction should be well secured.
* The System should cross check with the USM (User Security management) at the time of Login.
* To be tested for providing security while the system is in interface with the banks management system.
* The system should accept and process orders only when they are within the limits setup for the given customer.
* All user interface screens are expected to demonstrate a performance of less than 5 secs at all points of time.

**Test Estimation:**

* Estimated time of completion is 5 months.

**Test Deliverables:**

* User Acceptance testing Report
* Daily Status Report

**Test Environment:**

* UAT Environment.
* Testers and Developers Environment.

**Test Coverage:**

* Platforms: Internet Explorer, Netscape, Eudora.

**Types of Testing:**

* Smoke
* UAT
* Sanity
* Compatibility Testing
* Stress
* Load

**Important Features:**

* Registration
* Login/logout
* To view the cash balance in their trading account
* Trading Transaction

**Test Plan Documentation**

**Test Objective:**

* To test critical functionalities like Registration, Login/Logout, Balance Enquiry.

**Test Approach:**

* Top-Down approach

**Roles and Responsibilities:**

* Test Strategy is developed by Test Manager.
* Test Plan is developed by Test Lead.
* Test Design Testers and Devs
* Test Scripts & Test Cases are written by the Testers.
* Development is Carried out by Developers.

**Entry and Exit Criteria:**

**Entry Criteria:**

* All the functionalities have been successfully developed and functioning properly.
* All the necessary documentation, design & requirement information should be available to allow testers to operate the system.

**Exit Criteria:**

* A certain level of requirement coverage has been achieved.
* No Critical defects, maximum one major defect and three minor defects can be left outstanding.

**Suspension & Resumption Criteria:**

**Suspension:**

* The System contains critical defects such as not able to move further from registration or login page.

**Resumption:**

* Resumption will occur only after the problem that caused suspension has been resolved.

**Testing Types:**

* Performance Testing
* Functional Testing
* System Integration Testing
* UAT

**Resource:**

* Developers – 5 – 10.
* Testers – 3 – 4.
* Equipment’s: Selenium Web Driver, Jira, TestLink.

**Test Schedule:**

* Time required to complete this system with all the identified functionalities will be around 5 Months.
* Maximum allotted time provided by the client is 3 months.

**Test Automation:**

* Test Management Tools like TestLink, IBM Rational Quality Manager, TestRail etc.
* Web Based Testing tools like Selenium Web Driver & JUnit.
* Jira is used as a platform for Test Planning.

**Test Deliverables:**

* Kan Ban Document (Jira).