Test Strategy – ABC Global Banking System

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## Business Goal

To make a test strategy for Re-designing Global Banking system which covers:

* To redesign and create new layout for ABC global banking system having new look and feel of the website which is more value driven and user friendly for customers.
* To make ABC global banking website more user friendly with enhanced user experience.
* To redesign all front-end web pages of the global website.
* It does not include changes to back-end (database) and API layer of the Global Banking system.
* It does not include changes to business workflows, there should absolutely be no change to website functionality.
* There is no data migration involved.

## Test Approach

The test approach includes a series of different test activities that is testing user friendly global banking solution as per specified requirements. The primary purpose of these activities is to uncover the functional limitations and to measure its enhanced capabilities.

The test approach will cover following aspects of Global Banking Solution: -

* The Global Banking website should have enhanced customer experience which covers all the existing functionalities of the system i.e. retail banking, private banking, investment banking, insurance, leasing, loan and card related services etc.
* UI should be properly designed by the UX team based on the Customer’s feedback for more than 300 pages of the website. Potentially acceptable competitor website can also be gauged for UI Improvements.
* QA team should be involved in reviewing the designs of UIs through mind mup strategy test planning.
* The backend database and API layer there should not be any changes as we have to provide the customer the WoW experience, but functionality wise no issues reported by the customer. So, we would not be performing any Data migration for this redesign and development.
* All the API Tests should be QA Pass post the redesign and development of global banking system.
* We will follow Agile Testing pyramid so when 70 % of the API Automation and 30 % of UI Automation.
* QA team will complete first the UI Functional Testing and then will Automate the positive scenarios.
* Non-Functional Testing will also be considered for UI using Blazemeter.
* Mobile Functional testing for responsive behavior of the website will also be considered for the newly developed re-designed website.

## Test Solution

### In Scope

Following functional and non-functional testing for Global Banking System will be conducted:

|  |  |  |
| --- | --- | --- |
| **Types of testing** | | **Mode/Tools** |
| **Functional** | Exploratory testing | Manual/JIRA |
| Selenium / Appium / Mobile Automation Testing | Selenium /Appium Automation/JIRA/IntelliJ/Jenkins |
| Regression Testing (API, Selenium, Appium) | Automated / Jenkins / JIRA |
| Release Candidate Testing | JIRA/Automated/Jenkins  Manual/JIRA |
|
| **Non-functional** | Performance | Blazemeter / JMeter |

#### Functional Integration testing

Integration testing focuses on testing the seamless integration between different modules of ABC Global Banking System and make sure if the completed functionality behaving as one system. The test team ensures that after understanding the detailed system data flow, user gets seamless access to the intended features.

Test team uses **Incremental testing approach** to validate the interoperability of the components of ABC Global Banking System

* Testing each business function end-to-end through the application, including positive and negative tests.
* Cause-effect testing (supplying input values to cause all possible output values to occur).
* Boundary value analysis (testing modules by supplying input values within, at, and beyond the specified boundaries).
* Verifying links between internal application components and verification of the related components in the complete eco-system.

The test team is using JIRA as the requirement tool. All requirements in user stories are tracked through JIRA.

#### Regression testing

Regression testing is essential for ensuring software quality of the existing features of the system. We will ensure that the delivery team is following Agile methodology and built in an incremental and iterative manner. It is very important to validate the modified software to provide confidence that the changed parts of the software behave as intended, and that the unchanged/existing features of the software have not been adversely affected.

Exploratory testing is performed using the scenarios that are derived from the business requirements for each user story.

### Out of Scope

* Accessibility Testing is not considered in the test strategy for that separate thread needs to be started first getting the requirements from accessibility perspective and strategize for testing the same.
* Security testing is not the part of this Test Strategy as it is altogether different arena from Functional testing. However, we can involve Nagarro CQE team to perform the same when the need arises in the product.

## Test Tools

* JIRA for Requirements & Defect management
* Selenium /Appium Automation/JIRA/IntelliJ/Jenkins
* JMeter for Performance

## Where to be tested

* Cloud Infrastructure :
  + - Latest version of chrome,Internet Explorer,Firefox on windows and safari on mac OS.
* Devices for responsive behaviour testing:
  + - Chrome on Android mobile devices / Samsung Tablet and Safari on iOS mobile devices / Ipad.

## Entry and Exit Criteria

* Entry criteria :
* User acceptance criteria should be clear on each story based on discussion with functional group.
* Completed feature story should be available on seperate test environment.
* Exit Criteria :
* Review list of bugs of reported.If there are lot of bugs, then there should be a bug triage meeting and decision should be taken collectively by team.
* List of open and fixed bugs should be shared with entire QA team.
* Few of automation test should be demonstrated in Demo.

## Risks and Mitigation

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Risk** | **Mitigation** | **Status** |
| 1 | Currently performance testing is low priority. | Adding a resource to automate performance testing would catch many issues as earliest as possible. | Open |
| 2 | Unavailability of hardware devices | Need to buy iOS device and Android device to start testing which is in scope. | Open |