TEST PLAN FOR PROJECT-SINGLE SIGN ON AUTHENTICATION

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*ChangeLog*

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|  |  |  |  |

1 Introduction 2

1.1 Scope 2

1.1.1 In Scope 2

1.1.2 Out of Scope 2

1.2 Quality Objective 2

1.3 Roles and Responsibilities 2

2 Test Methodology 3

2.1 Overview 3

2.2 Test Levels 3

2.3 Bug Triage 3

2.4 Suspension Criteria and Resumption Requirements 3

2.5 Test Completeness 4

3 Test Deliverables 4

4 Resource & Environment Needs 4

4.1 Testing Tools 4

4.2 Test Environment 4

5 Terms/Acronyms 5

# Introduction

The Test Plan is designed to prescribe the scope, approach, resources, and schedule of all testing activities of the project Single Sign On Authentication.

The plan identifies the items to be tested, the features to be tested, the types of testing to be performed, the personnel responsible for testing, the resources and schedule required to complete testing.

## Scope

### In Scope

All the feature of Single Sign On of Real Estate Application which were defined in software requirement [specs](https://docs.google.com/document/d/1rPW5DV82VJT6vtA1VDSrfxaCBuAduxW0zb1yfTh_VMk/edit?pli=1) <Requirements.docx> are need to be tested

### Out of Scope

These features are not be tested because they are not included in the software requirement specs

* Hardware Integration
* Database related issues such as corruption, accidental removal of files
* Website Security and Performance

## Quality Objective

The test objectives are to **verify** the Functionality of website Real Estate application, the project should focus on testing the **Login page functionalities** such as successful login using valid credentials,failure to login using invalid credentials, new user sign up, successful sign out,etc. to **guarantee** all these operation can work **normally** in real business environment.

Some objectives of the testing project are:

* Ensure the Application Under Test conforms to functional and requirements
* Ensure the AUT meets the quality specifications defined by the client
* Ensure the AUT works as expected across SIT, UAT and pre-production environments
* Bugs/issues are identified and fixed before go live

## Roles and Responsibilities

The project should use **outsource** members as the tester to save the project cost.

|  |  |  |
| --- | --- | --- |
| No. | Member | Tasks |
| 1. | Test Manager | Manage the whole project Define project directions Acquire appropriate resources |
| 2. | Test | Identifying and describing appropriate test techniques/tools/automation architecture Verify and assess the Test Approach Execute the tests, Log results, Report the defects. |
| 3. | Developer in Test | Perform code/unit testing. |
| 4. | Test Administrator(PlatformsTeam) | Builds up and ensures test environment and assets are managed and maintained Support Tester to use the test environment for test execution |
| 5. | QA members | Take in charge of quality assurance, execute test scripts  Check to confirm whether the testing process is meeting specified requirements |
| 6. | Functional Analyst/Business Analyst | Take in charge of gathering the requirements and provide data driven recommendations |

# Test Methodology

## Overview

The test methodology selected for this project will be Agile. It is the time-boxed iterative approach to build software product. The main benefit is the ability to change dynamically to the customers' wants and needs. A focus on the features that are the highest value to the customer. A short-fixed timeline that allows for immediate feedback from the customer and the ability to move deliverables into production.

## Test Levels

In the project Single Sign On Authentication, there're 3 types of testing should be conducted.

System Integration Testing (SIT - Individual software modules are combined and tested as a group)within the login page of the real estate application

Integration testing: to check the interaction between the single sign on and external social sites by using stubs as top down approach

User Acceptance Testing (UAT): Conducted from the actual users’ perspective to make sure it can handle required tasks in real-world scenarios, according to specifications.

API testing: Test all the APIs created for the software under tested

## Bug Triage

The goal of the triage is to

To define the type of resolution for each bug

To prioritize bugs and determine a schedule for all “To Be Fixed Bugs’.

## Suspension Criteria and Resumption Requirements

If the team members report that there are **40%** of test cases **failed**, suspend testing until the development team fixes all the failed cases.

Test Completeness

Specifies the criteria that denote a **successful** completion of a test phase

**Run** rate is mandatory to be **100%**unless a clear reason is given

Pass rate is 80%, achieving the pass rate is mandatory

## Project task and estimation and schedule

|  |  |  |
| --- | --- | --- |
| **Task** | **Members** | **Estimate effort** |
| **Create the test specification** | Functional analyst | 80 man-hours |
| **Perform Test Execution** | Tester | 50 man-hours |
| **Test Report** | Tester | 10 man-hours |
| **Test Delivery** | Tester | 10 man-hours |
| **Miscellaneous** | Team | 10 man-hours |
| **Total** |  | **160 man-hours** |

**Schedule to complete these tasks**

# Test Deliverables

Test deliverables are provided as below

**Before testing phase**

* Test plans document.
* Test cases documents
* Test Design specifications.

**During the testing**

* Test Tool Simulators.
* Test Data
* Test execution Report

**After the testing cycles is over**

* Test Results/reports
* Defect Report
* Installation/ Test procedures guidelines
* Release notes
* Test Summary Report

# Resource & Environment Needs

## Testing Tools

|  |  |  |
| --- | --- | --- |
| **No.** | **Resources** | **Descriptions** |
| **1.** | Selenium | Need Selenium as part of Automation to execute Test cases it is a suite of tools that support multiple browsers, environments and can support different programing languages, it is cost effective as well as it is open source tool |
| **2.** | Cucumber framework | It is an effective automation framework tool based on BDD (Behavioral Development) that enables the features to be written in Gherkin a language that can be easily understood by the stakeholders who do not have any coding experience |
| **3.** | Java JDK Version 8 Update 241 | The perfect Run Time Environment to execute the test scripts that can be platform independent, robust and Object Oriented to create POM model at the framework level |
| **4.** | Test Rail | Test cases can be managed and maintained in Test rail, also can give the status of the successful runs |
| **5** | Jira | To manage the Agile Project management by working on the User Stories that leverage the acceptance criteria |
| **6** | Bitbucket | This is used for Code repository and it can be integrated with CI/CD pipelining tools as well |
| **7** | Jenkins | The job scheduling part can be taken care by Jenkins that supports Cucumber and generated the run results as cucumber report |
| **8** | Sonar Cloud | The cloud-based Service for code analysis that helps in the standardization of the code and   the visibility and transparency of the results can be increased. |
| **9** | JDBC | To connect to the backend to retrieve the data back and forth |
| **10** | Oracle SQL developer | To manipulate with the basic queries in case of any API related failures |

## Test Environment

**hardware requirements that will be used to test the Application.**

* Computer
* VGA monitor to carry out parallel tasks
* Eclipse IDE to work on the automation suite

**Following software’s are required in addition to client-specific software.**

* Windows 8 and above
* Office 2013 and above
* MS Exchange, Microsoft teams.

# 

# Terms/Acronyms

Make a mention of any terms or acronyms used in the project

| TERM/ACRONYM | DEFINITION |
| --- | --- |
| API | Application Program Interface |
| AUT | Application Under Test |