

**FDA Recall Data Form**



**Acumen Solutions**

**1660 International Drive**

**Suite 500**

**McLean, VA 22102**

[**www.acumensolutions.com**](http://www.acumensolutions.com)

**Contents**

**1.** **Purpose**

**2.** **Reference Documents**

**3.** **Test Plan Overview**

3.1. Project Description

3.2. Test Objectives

3.3. Assumptions

3.4. Constraints

**4.** **Risk and Mitigation**

**5.** **Test Stages**

**6.** **Test Scope**

**7.** **Test Approach**

**8.** **Test Environments**

**9.** **Test Tools**

**10.** **Defect Reporting & Management**

10.1. Defect Management Process

10.2. Defect Priorities

10.3. Defect Severity

**11.** **Entrance/Exit Criteria**

11.1. Entrance Criteria

11.2. Exit Criteria

**12.** **Training**

**13.** **Communication Norms**

**14.** **Test Schedule**

**15.** **Roles & Responsibilities**

# Purpose

The Test Plan describes the objectives, scope, and approach of intended testing activities. It identifies what items (systems, subsystems, major functional areas, etc.) are being tested, what types of tests are being performed, as well as roles and responsibilities. The Test Plan is a comprehensive release-level document that covers all test activities planned (System, User, etc.) in a single plan. The intent is to ensure management has visibility into the total scope of testing responsibilities as well as any gaps or risks.

Testing activities must take place in a non-production environment. The IT team, business, or both teams may execute testing. For testing conducted by IT staff, the IT Owner must ensure the Segregation of Duties (SOD) standards are adhered to (for example, only authorized individuals shall have access to the testing system(s)/platform(s)). Project teams shall consult with the Project Sponsor and the CRB to determine the appropriate testing environment, strategy, tools, and methods to ensure a quality delivery.

The goal of testing is to ensure that changes to the production environment achieve specific business requirements, do not compromise the integrity of the data/system, or change the processing functionality in a way that was unintended. At the project team’s discretion, any of the following combination of testing types shall constitute certification testing: Unit Testing, System Testing, Regression Testing, and User Acceptance Testing. If upstream or downstream systems, applications, or business processes are affected by the change, validate the change with these systems, applications, business processes, and any associated interfaces. Additional tests may be conducted to validate documentation, training, contingency plans, disaster recovery, and installation depending upon the specific circumstances of the project.

# Reference Documents

User Stories

Solution Design Document

# Test Plan Overview

## Project Description

The goal of the FDA Recall Data Form is to allow U.S. consumers to easily find relevant information regarding recalls by State, Status, Class, and user-specified search terms. The form must allow users to view several recall cases, drill down to receive more comprehensive information on the recall, and conduct additional searches. The form must be visible across a variety of internet-enabled devices, including traditional computers as well as mobile devices and tablets.

## Test Objectives

The primary objective of testing for the FDA Recall Data Form is to verify that in-scope functionality as well as device accessibility satisfies the requirements documented in the User Stories.

## Assumptions

As part of testing, the following assumptions have been made:

* The form will function for modern browsers only (those that can render CSS3, HTML5), which include:
  + The latest version of Google Chrome as of the signing of the contract for this project.
  + The latest version of Mozilla Firefox as of the signing of the contract for this project.
  + Internet Explorer 11
  + Internet Explorer 10
* The form should function across a wide array of devices; however, due to testing constraints, only the following devices will be supported and tested:
  + iPhone 6
  + Samsung Galaxy S-series
  + iPad (3rd generation or higher)
  + Kindle Fire 7”
* Testing will be done on native mobile devices where possible, but in the event that a native device cannot be found, testing will occur on mobile emulators to ensure form visibility on mobile devices.
* The form will utilize the API calls provided by the client. The API documentation provided is valid and concise.
* The form relies on the use of JavaScript to function. Browsers with JavaScript disabled will not be supported.

## Constraints

The following are testing constraints that have been identified:

* The project timeline is highly compressed such that the time to develop, test, and present must take place over a one (1) week period.
* Form success depends on data availability from the source system. If for some reason, the source system is unable to deliver or respond to valid API calls, the form will not work as expected.
* The form can only return data that is provided back; therefore, only the fields returned by the source system can be displayed.
* The form relies on JavaScript and JavaScript libraries.

# Risk and Mitigation

The following risks have been identified:

|  |  |
| --- | --- |
| **Risk** | **Mitigation Strategy** |
| Timeline | At the conclusion of each business day, the team will review progress and prioritize user stories. Incomplete user stories will remain in product backlog. |
| Compressed testing time | Additional resources will be involved with testing, which will be coordinated by the QA. |

# Test Stages

**Unit Testing -** Unit testing is performed by the developers. The purpose of unit testing is to test each piece of functionality in its smallest part.

**System Testing** - System testing is performed by the QA team. The purpose of system testing is to conduct end-to-end tests on the product.

**Bug-Fix Testing -** Bug-fix testing is performed by the QA team and is only necessary when re-testing defects. Testing will occur only on the test cases in which defects were identified.

**Regression Testing -** Regression testing is performed by the QA team. The purpose of regression testing is to conduct end-to-end testing once defects have been fixed to ensure other previously-working functions are still working.

**User Acceptance Testing (UAT) -** UAT is performed by the client and occurs to ensure that the requirements are met and the application is working as desired.

# Test Scope

The following high level scenarios will be covered as part of testing:

# Test Approach

PivotalTracker will be used for test management.

The following steps will be performed as part of the testing process:

1. The QA team will conduct a thorough analysis and review of User Stories to ensure there is coverage.
2. Based on the analysis, the QA team will outline a number of high-level test scenarios to represent positive and negative conditions.
3. The test scenarios will be converted into detailed test cases, including step-by-step instructions to evaluate the application against the user stories. Each user story will be covered by one or more test cases. The test cases will also define expected results against each step performed.
4. The Test cases will be linked to user stories to generate requirements coverage.
5. Test Case execution will have results validation with screenshots where necessary.

# Test Environments

|  |  |  |
| --- | --- | --- |
| **Environment** | **Location** | **Purpose** |
| Dev / Unit Test | Developer Local Machine | For developers to create and unit test the application. |
| System Test | https://acumen-gsa-prototype.herokuapp.com/#/search | For the QA team to review the application in a separate environment and perform System testing. |
| UAT |  | For the client to review the application and perform UAT. |

# Test Tools

The following tools will be employed during the System test phase for the FDA Recall Data Form:

* PivotalTracker - for recording user stories and tracking test cases
* Google Sheets - for defect tracking and matching defects to test cases

# Defect Reporting & Management

Defects will be recorded in Google Sheets for tracking.

## Defect Management Process

The following are the steps to handle defects:

|  |  |  |
| --- | --- | --- |
| **Step No.** | **Task** | **Owner** |
| 1 | Record defect | Tester |
| 2 | Prioritize Defect | QA Lead |
| 3 | Root cause analysis | Dev Team |
| 4 | Discussion | QA, Dev Team, PM |
| 4a | Escalate test case if needed | QA Lead/Delivery Manager/Client |
| 4b | Provide LOE analysis | Delivery Manager / Dev Team |
| 4c | Go/No-go on defect fix | Client |
| 5 | Defect fixed in code | Dev team |
| 6 | Retesting | QA Team |
| 7 | Close defect | QA Team |

## Defect Priorities

|  |  |  |
| --- | --- | --- |
| **Priority Description** | **Priority Definitions for defects in non-production** | **Priority Definitions for Production Defects** |
| Critical | Immediate attention – must receive highest development priority. This situation should be resolved immediately since the defect causes most if not all of the functional areas to be un-testable. | Immediate attention – must receive highest development priority. This should be resolved immediately |
| High | Should be reported immediately to the development team. A response or action plan must be provided within 2 working days since the defect causes more than one of the functional areas to be un-testable. | Should be reported immediately to the development team. A response or action plan must be provided within 2 working days. |
| Medium | A response or action plan should be reported within 5 working days. | A response or action plan should be reported within 5 working days. This defect should be resolved in the next release |
| Low | Fix dates are subject to negotiation. An action plan should be developed before the next release | Fix dates are subject to negotiation. An action plan should be developed for the next release |

## Defect Severity

|  |  |  |
| --- | --- | --- |
| **Severity**  **Description** | **Severity Definitions for System, User, and Production** | **Severity Definitions for Requirement Defects** |
| Critical | Severe business disruption, financial or reputational impact and no workaround exists. The customer is unable to use the product, resulting in a critical impact to their operation. This defect must be resolved before exiting current phase or releasing to production. | In-scope content is missing, or content is included that is not in scope, or content otherwise has major flaws that need to be corrected before it can be effectively reviewed. The Reason for the requirement defect is usually  Incomplete/Missing  Inconsistent  Incorrect |
| High | Significant business disruption but a workaround exists. The customer is able to use the product but is severely restricted. This defect should be resolved before exiting current phase or releasing to production. | Content has a major inaccuracy or is missing important detail. The Reason for the requirement defect is usually  Incomplete/Missing  Incorrect  Unclear  Inconsistent  Not traceable  Not testable |
| Medium | Minor business disruption of business, but has a workaround; minor usability issues. This defect should be resolved before exiting current phase or releasing to production. | Content is correct, but has a moderate flaw that needs amendment; for instance because it is unclear, imprecise, or not concise. Also used to note content that has missing or incorrect mapping to requirements. The Reason for the requirement defect is usually  Unclear  Not traceable  Not testable |
| Low | The defect may be cosmetic in nature; or a usability annoyance like warning messages; misspelled words, etc. | Formatting or organizational observation, or a grammatical or spelling error, not affecting meaning. The Reason for the requirement defect is usually  Unclear  Implementation dependent |

# Entrance/Exit Criteria

## Entrance Criteria

* All test environments must have been successfully set up.
* All necessary documentation, design, and requirements information should be approved and available so that testers can operate the system and judge the correct behavior.
* The application is successfully deployed on the Test environment and is stable to execute system tests. The QA team has access to release notes for deployment.
* Standard browsers must be installed on the test machines.
* All personnel involved in the testing effort must be trained in the tools to be used in the testing process.
* Valid data is available.

## Exit Criteria

* All test cases have been executed.
* All coverage has been achieved. Requirements not having coverage must be approved in writing by the client.
* All defects are closed, cancelled, or deferred (with approval).
* All high-risk areas have been fully tested with only minor residual risks left outstanding.
* The schedule has been achieved.

# Training

No training is required for this portion of the deployment.

# Communication Norms

Test execution statuses will be communicated to the client during the 4:00 pm daily standup. During the standup, the QA team will discuss:

* Open defects
* Deferred defects
* Critical Risk items
* Test Case Velocity

# Test Schedule

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task/Milestone** | **Resource** | **Planned Start Date** | **Planned End Date** | **Comments** |
| Create Test Plan | A. Fadely | 6/24/15 | 6/25/15 |  |
| Create Test Cases | A. Fadely | 6/24/15 | 6/26/15 | Test cases added as new user stories are created |
| System Testing | A. Fadely, G. Ranade, J. Marsarweh | 6/25/15 | 6/29/15 |  |
| UAT | Client | 6/29/15 | 6/30/15 |  |

# Roles & Responsibilities

|  |  |  |
| --- | --- | --- |
| **Role** | **Name of Team Member** | **Responsibility** |
| Delivery Lead | Girish Ranade | * Management and Oversight |
| Business Team | Saurabh Verma Adam Horvath Paul Pick-Aluas  Deepak Gupta | * Management and Oversight |
| Development Team | Sahil Grover  Matt Heim  Claude Sutterlin | * Development and error remediation * Test script execution for unit testing * Test reporting for unit testing |
| Product Team | Jamil Masarweh  Austin Fadely | * User story development * Design documentation |
| QA Lead | Austin Fadely | * Test Case development and execution * Defect management * Test reporting |
| UAT Team | Saurabh Verma Adam Horvath Paul Pick-Aluas  Deepak Gupta | * Test case execution in UAT environment * Defect prioritization in UAT environment * Test reporting for UAT |