

**Test Plan**

(Workforce Management Case Study)

**Version 1.0**

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**Revision History:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version No.** | **Release Date** | **Author** | **Description** | **Comments** |
| 1.0 | 3-Apr-2015 | Swadhin Kumar Mishra/Shashank Sharma | Initial Draft |  |

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## **1**.0 INTRODUCTION

Jumbune is an open-source product built for analysing Hadoop cluster and Map Reduce jobs. It provides development & administrative insights of Hadoop based analytical solutions. It enables user to Debug, Profile, Monitor & Validate analytical solutions hosted on decoupled clusters. The goal of application is to make better, more informed decisions, minimize compliance risks and improve workforce productivity.

## **2.0 OBJECTIVE**

### **2.1Objectives**

* Identify the scope of testing
* List the recommended test requirements (high level).
* Recommend and describe the testing strategies to be employed.
* Identify the required resources and provide an estimate of the test efforts.
* List the deliverable elements of the test activities.
* Explain the testing methodology for the functionality in case study and is to be used as a guide for all testing related activity.
* Define specific quality expectations required for the case study.
* Define the risks and dependencies if any

### **2.2 Intended audience for this document**

Product Owners, Mentors, Evaluators and Scrum teams.

## **3.0 SCOPE**

3.1 In Scope   
The scope of testing as explained in this section is to test the functionality .The tests are organized by requirement category such as functionality, integration etc. The procedure for performing these tests such as preparing test cases, setup of the required test environment, logging defects and reporting are explained.

* downloading Jumbune Jar File properly to Ubuntu
* Follow Up the Installation Instructions to Setup Jumbune properly on Ubuntu
* Test all UI features with proper Links, Navigations, and Downloads etc.
* User Interface testing on Home page
* Test Flow Debugging feature with Inputs and testing of the Map Reduce flow
* Test HDFS Data Validation: This component validates inconsistencies in the HDFS data per record basis in the form of null, data type & regex checks

3.1 Out of Scope

This section does NOT address the following general requirements:

* Performance & Scalability testing.
* Automation Testing.

## **4.0 TESTING STRATEGY**

The Test Strategy presents the recommended approach to the testing of the Workforce Management case study. The main considerations for the test strategy are the techniques to be used and the criteria for knowing when the testing is completed.

***QA will be informed of the application functionality as defined by the reference application. Documented features are implemented in the application and work as expected. Sources for the information will consist of the reference application primarily and any other document specifying functionality not contained within the reference application.***

## 4.1 Manual testing (functional)

### What

* + The manual test cases will be derived from the requirement doc.
  + The manual test cases will cover all major positive and negative scenarios.
  + There should be manual test cases for provided functionality in Admin UI (Server side web application) and Mobile Application.
  + There should not be any requirement left out in the test cases.

### How

* + The manual test cases will be tested on the mentioned test environment.
  + The Earlier Defect will be verified first (if any), before executing the tests for each cycle.
  + There will be Report published on the execution.

### ****4.2**** System and Integration Testing

Definition:  
The purpose is to verify that the new release implements the required features, covers the scheduled bug fixes and the major functionalities are not broken.

Participants:

**Who** Development /QA team will be owner for Integration testing.

Methodology:

* The developers and QA team will be responsible for ensuring that integrated system meets the specified requirements.
* Test cases will be developed/modified by QA Team.
* Developers will make sure that the feature functions as per the requirements and the test cases status will be updated by QA.
* Developers will make sure that after integration; the system is stable and free from any major defect that may hamper testing when the build is moved for QA verification. Any known bugs should be part of release notes.

### **4.3** Basic Acceptance Testing

Definition:  
The purpose is to verify that the new release satisfies the basic requirements, build is fit to be tested means the major functionalities are not broken.

Participants:

Development/QA team will be owner for BAT testing. (Product owner who can verify the acceptance criteria)

Methodology:

* The developers and QA team will be responsible for ensuring that the build meets the specified basic requirements.
* Test cases will be developed/modified by QA Team.
* Developers will make sure that build is fit to be tested and test cases will be updated by QA.
* Developers will make sure that after BAT; the system is stable and free from any showstopper defects that that may stop the QA from testing when the build is moved for QA verification.

### 

## 5.0 DEFECT TRACKING

This section will provide information about issues logging procedure and practices

* Severity Guidelines:
* Priority Guidelines:
* Issues logging cycle:
* Tool to be used for defect logging:
* Defect workflow & escalation:

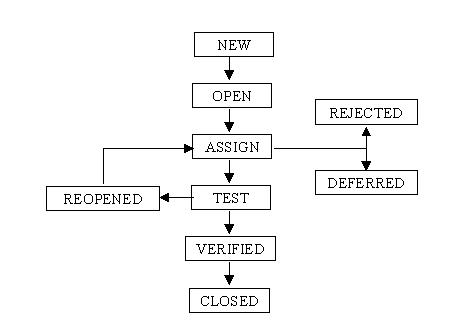
Version One is our defect tracking tool.

## Issues

Whenever an issue found during the testing, it should be logged in to version one immediately. After logging the issue, it should be assigned to the development member to fix and unit test it. Code review by team lead and testing by QA member follows the process.

## Bug reporting

A defect is routed to the next stage if it passes the current stage. Otherwise it is rejected to the previous stage



## Bug Classification

Severity/Priority should be assigned as per the following procedures:

## Severity list

|  |  |  |
| --- | --- | --- |
| **Severity** | **Definition** |  |
| 1-Critical | • Application Crash • Consistent access error/exceptions or timeouts while performing mission critical application tasks. • Performance degradation resulting in mission critical functionality to become unusable. • Defects that result into any legal or financial exposure • Any Security / Privacy vulnerability |  |
|  |
|  |
|  |
|  |
| 2-Major | • Consistent access error/exceptions or timeouts while performing auxiliary application tasks. • Loss of Functionality of common application tasks. e.g missing links. • Significant Problem for which a possible work around exits, but still requires immediate attention. • Does not crash the system but Wrong Functionality |  |
|  |
|  |
|  |
| 3-Minor | • Cosmetic problem like misspell words or misaligned text • Issues having short term work rounds • Graphical errors |  |
|  |
|  |
| 4-Non-affecting | • Issues not requiring immediate attention  • Issues that need not be addressed at all • Postponed items/Issues •Issues that do not cause any effect on the functionality of the application |  |
|  |
|  |
| Priority List |  |  |
| **Priority** | **Definition** |  |
| 1-Urgent | • Needs to fix ASAP |  |
| 2-High | • Fix for the next Daily Build |  |
| 3-Medium | • Fix. If Time permits, Release Manager/IM needs to make a call. |  |
| 4-Low | • Fix. If Time permits  • Not Necessary/Desirable |  |

## **6.0 ENVIRONMENT DETAILS/ TOOLS**

We are planning to use the following tools:

|  |  |  |
| --- | --- | --- |
| **#** | **Tool** | **Purpose** |
| 1 | Version One | Test Management |
| 2 | GIT | Artifact Repository |
| 3 | MS-Office | For Reporting, communication, Documentation etc. |

## 7.0 TEST SCHEDULE/MILESTONES

This schedule is valid for the date of the revision of this document. Because specific schedule dates change often, the start & stop testing dates may not reflect the current schedule.

### 7.1 Test plan preparation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Milestone** | **Start Date** | **End Date** | **Owner** |
| 1 | Test plan preparation | 30th Mar 2015 | 31th Mar 2015 | Shashank Sharma , Swadhin Kumar Mishra |
| 2 | Test plan complete | 1st Apr 2015 | 3rd Apr 2015 | Shashank Sharma , Swadhin Kumar Mishra |

## 8.0 ENTRY AND EXIT CRITERIA

Entry Criteria:

The entry criteria of testing will be based on the following activities/assumptions:

* Development of the said module/s is complete or the module/s to be tested is completed & unit testing is performed on those pieces
* Release of the Application to the QA team
* Dedicated resources are allocated to QA team
* Test environment including network, devices and tools are available and functioning

Exit Criteria:

The following is the criteria when the testing activity will be deemed complete for a module:

* All test cases have been executed and at-least 95% have passed successfully (of the 5% remaining do not impact the Application critically, or may be platform/device/browser limitations)
* All results have been evaluated and accepted by QA in-charge and stakeholders
* There are no showstoppers or critical errors/defects remaining unresolved. This kind of defect status has to be updated or a red flag is to be raised by QA

## **9.0 FEATURES TO BE TESTED**

As part of functional testing suggested for Phase 1 the release will only include the ecommerce flow and supporting features as listed in the table below:

|  |  |
| --- | --- |
| **S#** | **Features/Test Condition** |
| 1 | Verify Map Reduce List Use Case |
| 2 | Verify Flow Debugging List of Use Case |
| 3 | Verify Profiling List Use Case |
| 4 | Verify HDFS Validation List Use Case |
| 5 | Verify Tuning List Use Case |
| 6 | Verify Home and Wizard |

## **10.0 FEATURES NOT TO BE TESTED**

Following are the Out of scope items that will be excluded during functional testing apart from the above listed in section 3.1.1;

|  |  |
| --- | --- |
| **S#** | **Features/Test Condition** |
| **1** | **Time-Off Requests** |
| **2** | **Exceptions** |

## **11.0 RESOURCES/ROLES & RESPONSIBILITIES**

# Team Members and Roles

|  |  |
| --- | --- |
| Name | Role |
| **Mayank Mishra** | **Product Owner** |
| **Saurabh Juneja** | **Evaluator** |
| **Deepika Gupta** | **Dev Lead and Point of contact** |
| **Shashank ,Swadhin** | **QA Engineers** |
| **Akash G, Ajay, Akash J, Sanjay, Shyamsharan** | **Dev team** |

## 12.0 REPORTING STRUCTURE

The following diagram shows the notification and escalation paths to be followed for the duration of the project Test Phase.

## 

## **13.0 TESTDeliverables**

**Key Deliverables:**

There are QA deliverables for this project, including:

* Test Plan
* Test Cases suite
* Test Report
* Defect List

## **14.0 DEPENDENCIES**

Here is the list of all the dependencies that can affect testing:

* Network connectivity
* Server Availability
* QA Resources timely availability
* Proper functioning of Jumbune Application
* Development should be completed on its scheduled date.
* QA should get a clean build while preparing the build.
* Deployment should be successful on application server.
* Test Case management tool should work properly.
* All the server, client and database machines should work properly.

## **15.0 RISKS/ASSUMPTIONS**

## Risks

Listed Below are some risks for the short cycle of iteration that may affect the schedule of testing.

* Due to unavailability of visuals of the application.
* Any delay in delivery of releases to test due to defect fixing or delay due to show stoppers.
* Any server related down time or latency affecting the execution of the test plan/cases.
* Unavailability of tools and equipment defined in section “[Test Environment](#_Test_Environment)/Tools”
* Lack of required resources such as testers, hardware/software
* Requirement change
* Scope change

## Assumptions:

* Every release to QA for testing will include a release notes document specifying the details of the features implemented and its impact if any on various modules of the case study.
* All showstopper/critical defects will be fixed with highest priority.
* All documentation will be up-to date and available to the QA team on timely basis.
* Deployment or production environment should be ready for testing on the cycle.
* In case of delay in equipment procurement or network related delays; the test schedule will have to be reviewed.

## 16.0 MEETING CADENCE/COMMUNICATION PLAN

We will be using presentations, meetings, status reports, email, instant messenger, telephone and video conference to communicate with all the project team members including following cadence:

* Sprint planning meeting is conducted every 2 weeks.
* Team meets every day for stand up meeting.
* Every week, evaluation meeting is conducted on Friday.
* Individual meetings and discussion on requirement basis.

## **17.0 APPROVALS**

Below are names of persons / stake holders who are responsible for approvals on various QA activities during STLC and this Test Plan.

Name (In Capital Letters) Signature Date

1. Deepika Gupta
2. Saurabh Juneja
3. Mayank Mishra