**Test Plan**

**For**

**Smart Profiling of Rice**

VERSION HISTORY

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Brief description of changes** |
| 0.1 | *SQTC Team* | *22/12/2022* |  |  | Draft Test Plan document of Smart Profiling of Rice |
| 1.0 | *SQTC Team* |  |  |  |  |
| 1.1 | *SQTC Team* |  |  |  |  |
| 2.0 | *SQTC Team* |  |  |  |  |

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APPENDIX A: KEY TERMS

### Introduction

### Purpose

This mobile application will be provided with any kind of resource hub of skills development cognate study, research paper and other documents. A jointly collaborating hub will be established among users, skills providers, and trainees. It will engender a rialto for the adept workforce where users can explore available resources.

### Project Description

The purpose of this application is to automate the law department processes of DSCC, so that the operation of CMS runs Smoothly, Accurately, and Efficiently. The following scopes will be covered:

1. Admin

* Login Screen
* Homepage
  + - 1. Administrator Dashboard
      2. Expert Dashboard
      3. System Admin Dashboard
      4. User Dashboard
* Administrator Dashboard
* সাধারন তথ্য :

1. বিভাগ
2. জেলা
3. অঞ্চল
4. উপজেলা
5. ধানের ধরনসমুহ

* Rice:

1. ধানের তথ্যসমূহ
2. উপযুক্ত এলাকা
3. মৌসুম
4. শস্য বিন্যাস
5. জমির ধরণ
6. BRRI ধানের জাত
7. Archives
8. BRRI Crop Problem

* Chat
* ধান চাষ
* পোকা মাকড় ব্যবস্থাপনা
* পানির সেচ প্রকল্প
* মাটি সার ব্যবস্থাপনা
* বীজ উৎপাদন ও সংরক্ষণ
* রোগ বালাই ব্যবস্থাপনা
* নোটিফিকেশন সমূহ
* All Types of Users:

1. Manage Users
2. Generate Report
3. User Report
4. Manage Experts
5. Manage System Admin
6. User:

* Login Screen
* Dashboard
* More:

1. ফসলের সমস্যার কথা জানান
2. BRRI Crop Problem
3. COMPARE
4. Chat
5. Calculation
6. Expert:

* Login Screen
* Dashboard
* More:

1. Crop Problem
2. System Admin:

* Login Screen
* Dashboard
* Various:

1. Example:
2. Data-Table
3. Slick Slider
4. Blank
5. Mobile App User:

* Login Screen
* OTP submission page
* Homepage:

1. ধানের জাত পরিচিতি
2. বিভিন্ন ধরনের চাষপদ্ধতি
3. মাটি ও সার ব্যবস্থাপনা
4. ধানের জাত নির্বাচন
5. সেচ ও পানি ব্যবস্থাপনা
6. রোগ-বালাই ব্যবস্থাপনা
7. পোকামাকড় ব্যবস্থাপনা
8. বীজ উৎপাদন
9. সম্ভাব্য খরচ নির্ণয়
10. ফসলের সমস্যার কথা জানান
11. আবহাওয়া আপডেট
12. আর্কাইভ

* Chat
* Problem
* See More:

1. Edit and Update Profile
2. ব্রি পরিচিতি
3. ভাষা পরিবর্তন
4. যোগাযোগ
5. রেটিং প্রদান করুন
6. সার্বিক সহযোগিতা
7. গোপনীয়তা নীতি
8. লগ আউট করুন
9. Notification

### Scope of Testing

* 1. **Functional**

|  |  |  |
| --- | --- | --- |
| **Test Item** | **Version** | **Description** |
| Admin | 0.1 | All the Submodules and Scenarios under Admin |
| User | All the Submodules and Scenarios under User |
| Expert |  | All the Submodules and Scenarios under Expert |
| System Admin |  | All the Submodules and Scenarios under System Admin |
| Mobile App User |  | All the Submodules and Scenarios under Mobile App User |

### 

### Features to be Tested

### Features to be Tested -Functional:

1. Admin

• Login Screen

• Homepage

I. Administrator Dashboard

II. Expert Dashboard

III. System Admin Dashboard

IV. User Dashboard

• Administrator Dashboard

• সাধারন তথ্য :

I. বিভাগ

II. জেলা

III. অঞ্চল

IV. উপজেলা

V. ধানের ধরনসমুহ

• Rice:

I. ধানের তথ্যসমূহ

II. উপযুক্ত এলাকা

III. মৌসুম

IV. শস্য বিন্যাস

V. জমির ধরণ

VI. BRRI ধানের জাত

VII. Archives

VIII. BRRI Crop Problem

• Chat

• ধান চাষ

• পোকা মাকড় ব্যবস্থাপনা

• পানির সেচ প্রকল্প

• মাটি সার ব্যবস্থাপনা

• বীজ উৎপাদন ও সংরক্ষণ

• রোগ বালাই ব্যবস্থাপনা

• নোটিফিকেশন সমূহ

• All Types of Users:

I. Manage Users

II. Generate Report

III. User Report

IV. Manage Experts

V. Manage System Admin

2) User:

• Login Screen

• Dashboard

• More:

I. ফসলের সমস্যার কথা জানান

II. BRRI Crop Problem

III. COMPARE

IV. Chat

V. Calculation

3) Expert:

• Login Screen

• Dashboard

• More:

I. Crop Problem

4) System Admin:

• Login Screen

• Dashboard

• Various:

I. Example:

a) Data-Table

b) Slick Slider

c) Blank

5) Mobile App User:

• Login Screen

• OTP submission page

• Homepage:

I. ধানের জাত পরিচিতি

II. বিভিন্ন ধরনের চাষপদ্ধতি

III. মাটি ও সার ব্যবস্থাপনা

IV. ধানের জাত নির্বাচন

V. সেচ ও পানি ব্যবস্থাপনা

VI. রোগ-বালাই ব্যবস্থাপনা

VII. পোকামাকড় ব্যবস্থাপনা

VIII. বীজ উৎপাদন

IX. সম্ভাব্য খরচ নির্ণয়

X. ফসলের সমস্যার কথা জানান

XI. আবহাওয়া আপডেট

XII. আর্কাইভ

• Chat

• Problem

• See More:

I. Edit and Update Profile

II. ব্রি পরিচিতি

III. ভাষা পরিবর্তন

IV. যোগাযোগ

V. রেটিং প্রদান করুন

VI. সার্বিক সহযোগিতা

VII. গোপনীয়তা নীতি

VIII. লগ আউট করুন

IX. Notification

### Features Not to be Tested

N/A

### Document References



### Testing Environment

### Operating Systems

### Networks

### Hardware

### Software

### Test Deliverables

### Entry and Exit Criteria

### Entry & Exit criteria for Functional:

|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Type** | **Phase** | **Entry Criteria** | **Exit Criteria** |
| Functional | KT & Plan | 1.Functional walkthrough is scheduled | 1.Functional walkthrough is completed |
| 2.Test Plan is completed and signed off by client |
| Functional | Test Case Authoring | 1.Functional Walkthrough is completed | 1.Review is completed, and test cases are signed off by the BA |
| 2.All the queries related to the functionality are clarified by the BA |
| Functional | Test Case Execution | 1.Test Cases are signed off | 1.All the test cases are executed |
| 2.Access to the test Environment is given with required permissions | 2. All the critical and high severity defects are closed |
| 3.Availability of the test data for the respective functionality in the test environment | 3.Defects related UI may be in open state with PM/Business approval |
| Functional | Defect Retesting | 1.All the open defects are fixed and provided with valid root cause and assigned to the tester for retesting | 1.All the defects retested and closed |
| Functional | Closure | 1.Test Case execution is completed | 1.Test closure report is shared to the Client |
| 2.Critical & severity defects are closed |

### Acceptance Criteria:

* Zero Critical & High severity defects
* Test Case execution – 100%

### Testing Tools

* Bugzilla for defect management

### Testing Team

SQTC Team:

| **POC** | **Designation** |
| --- | --- |
| Mohammad Saiful Alam Khan | Test Manager, Project Director |
| [Progga Labony](mailto:progga.labony@bcc.gov.bd) | Assistant Programmer and Tester |
| Tabassum Ibnat Ena | Tester |
| Shadman Faiad Rhyme | Tester |
| Sadia Subrin Nitu | Tester |
| Md Tamim Ikbal | Tester |

### Stakeholders

BRRI

### Responsibilities

|  |  |  |
| --- | --- | --- |
| **POC** | **Role** | **Responsibilities** |
| Mohammad Saiful Alam Khan | Test Manager | Identifying Test Modules and Scenarios  Test Estimation  Test Plan |
| [Md Arif Chowdhury](mailto:arif.chowdhury@bcc.gov.bd) | Test Lead | Reviewing Test Cases and Test Results Sending Daily and Weekly Status Reports to Stakeholders Participating in Defect Calls  Preparing Testing Artifacts  Test case Authoring and Execution for Functional Testing |
| [Progga Labony](mailto:progga.labony@bcc.gov.bd) | Tester | Test case Authoring and Execution for Functional Testing |
| Sadia Subrin Nitu | Tester | Test case Authoring and Execution for Functional Testing |
| Tabassum Ibnat Ena | Tester | Test case Authoring and Execution for Functional Testing |

### Test Levels

The test levels we’re going to cover for this project are as follows.

* System Testing
* Integration Testing
* Acceptance Testing

### Test Approach

The following will be our test approach and different phases of testing for this project.

* Functional
* Compatibility
* Security

**Test Lifecycle Model to follow:** In this project we’ll follow the Waterfall model.

| Discover & Plan | Design & Author | Execution | Defect Retesting & Handover |
| --- | --- | --- | --- |
| * Understand web application from functional standpoint. * Develop manual functional test plan. * Confirm desktop compatibility matrix with development team. * Build test requirement traceability. matrix template | * Author manual functional test cases for desktop to cover all the functional features and perform peer review. * Utilize test RTM to establish traceability. * Review test cases with Business Analyst and obtain signoff. * Collaborate with Business Analyst for test data. | * Divide test cases among team members. * Perform 1 cycle of test case execution. * Raise defect in defect management tool. * Prepare daily test report based on execution result. * Conduct Defect Triage Meeting. | * Impact analysis based on the defects found. * Perform 1 cycle of Defect Re-testing. * Execute regression test. * Prepare final test report. * Review test report with Business Analyst and obtain signoff. |
| **Deliverables:**   * Manual functional test plan. * Desktop compatibility matrix. | **Deliverables:**   * Test cases | **Deliverables:**   * Daily execution report. * Bug report in Defect Management Tool. | **Deliverables:**   * Manual Functional Test Suite. * Closure report. * Defect Summary |

### Test Schedule-Functional

The following table depicts the schedule being followed for performing functional testing activities.

| **Test Type** | **Activity** | **Planned** | | **Actual** | | **Comment** |
| --- | --- | --- | --- | --- | --- | --- |
| **Start Date** | **End Date** | **Start Date** | **End Date** |
| Functional | KT |  |  |  |  |  |
| Test Plan |  |  |  |  |  |
| Test Case Authoring |  |  |  |  |  |
| Test Case Execution |  |  |  |  |  |
| Defect Verification |  |  |  | -- |  |
| Reporting & Closure |  |  |  |  |  |

### Test Monitoring and Reporting

### Monitoring

NA

### Reporting

* 1. Daily Status reports
  2. Weekly Status Reports
  3. Test Summary Report

### Defect Management

### Severity definition

* **High-** Defects which don’t allow to test the application further and build needs to be rejected and defects that have an impact not only on the modules under test, however has dependency on the other modules.
* **Medium-** Defects that have an impact on the module being tested and has dependency on other functionality of the same module.
* **Normal-** Defects that have an impact on the functionality for the module being tested.

### Defect Resolution time

|  |  |  |
| --- | --- | --- |
| **Severity** | **Response Time** | **Resolution Time** |
| Blocker / Critical | Acknowledging & understanding the problem within 2 hours. | Provide temporary fix or workaround within 4 hours from the time of notification |
| Permanent fix within 24 hours |
| Major | Acknowledging & understanding the problem within 4 hours. | Provide temporary fix or workaround within 24 hours from the time of notification |
| Permanent fix within 48 hours |
| Normal & Minor | Acknowledging & understanding the problem within 8 hours. | Depending on the discussion and agreement with BA & Dev team, to be fixed in the same or next sprint |
| Trivial & Enhancements | Acknowledging & understanding the problem within 8 hours. | Depending on the discussion and agreement BA & Dev team, to be fixed in the same or next sprint |

### Defect Metrics

* Defect by Severity
* Defect by Status
* Defect by Module

### Issue and Dependency

|  |  |  |
| --- | --- | --- |
| **SNO** | **Issue/Dependency** | **Status** |
| 1 | Support from development in resolving high impacting issues | Agreed |
| 2 | Application Uptime | 24 hours |
| 3 | User Credentials needed for the testing | Available |
| 4 | Availability of the test data in the testing environment | Available |

### Risks

### Project Risks

| **NO** | **Risk Area** | **Category** | **Probability** | **Impact** | **Severity** | **Mitigation Plan** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Missing Test scenarios | Missing/ Improper functionalities | Least Probable | Test Cases would not be authored | High | 1.Test Scenarios to be discussed with BA |
| 2. Test Cases to be reviewed and signed off by the BA. |
| 2 | Deliverables /sign off delays |  | Least Probable | Project delays | High | 1. Close monitoring on project progress |
| Delay from Development team | 2. Review schedule and priorities activities |
|  | 3.Follow up plan with to ensure deliverables and sign offs received on time |
| 3 | Increase in Scope of the testing | Scope increment | Least Probable | Requires additional effort | High | 1.Need to discuss on the additional scope with the IMED, Ministry of Planning & IECL, BD stakeholders |
| 2.Prepare the Plan and effort to prioritize the scope |
| 4 | Non-availability of test environments | Test environment | Least Probable | Schedule delay | High | 1. Close monitoring on the progress of the project |
| 2. Request for another environment for testing and share the risks in doing so |
| 5 | Delay in resolving defects | Delay | Least Probable | Project delay | High | 1. Ensure to receive the fixes for all the defects within timelines mentioned in the test schedule section |
| 6 | Requirement specification is not well documented. Requirement specifications for all screens are not available in SRS document | SRS | Most Probable | Difficulty on deciding how to test those screens which results in Schedule delay | High | 1. Conversation with development team through online tools |
| 7 | Allocation of resources of dedicated testing team in different training programs and activities | Resources | Most Probable | Schedule delay | High | 1. Other activities and training programs have to be planned in such a way so that these cannot hamper testing activities. |
|  | 2. Backup resources and time have to be planned. |

### Product Risks

| **NO** | **Risk Area** | **Category** | **Probability** | **Impact** | **Severity** | **Mitigation Plan** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | No option for setting Meta Data | Funcional | Most Probable | Business | High | Should be added in updated version. |
| 2 | No option for setting new roll in admin panel | Functional | Most Probable | Business | High | Should be added in updated version. |
| 3 | No option for setting permission in admin panel | Functional | Most Probable | Business | High | Should be added in updated version. |
| 4 | Admin can’t hard delete the cases | Functional | Most Probable | Business | High | Admin can activate or deactivate the cases for further uses and it should be added in updated version. |

### Plan Contingencies

N/A

### Communication Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **E-mail** | **Cell/Landline** |
| Test Manager | Saiful Alam Khan | saiful.khan@bcc.gov.bd | +880 1713118860 |
| Test Lead | Md Arif Chowdhury | arif.chowdhury@bcc.gov.bd | +880 1725338699 |

### Suspension criteria and Resumption requirements

* 1. **Suspension Criteria**
* Unavailability of software to be tested.
* During execution, unavailability of any external system on which testing software has been dependent.
* Introduction of any defect that prevents further testing.
* Assigned test resources are not available during testing activities.
  1. **Resumption Criteria**
* When testing environment becomes available again.
* When external components become available again.
* When a fix is successfully implemented for Blocker/Show stopper defects and Testing team has been notified to continue testing.
* When assigned test resources become available.

APPENDIX A: KEY TERMS

The following table provides definitions for terms relevant to this document.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| CCA | Controller of Certifying Authority |
| SRS | System Requirement Specifications |
| BA | Business Analyst |
| KT | Knowledge Transfer |
| Dev Team | Development Team |