**Test Plan**

**For**

**Graveyard Management System**

VERSION HISTORY

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Brief description of changes** |
| 0.1 | *SQTC Team* | *02/03/2023* |  |  | draft |
|  |  |  |  |  |  |

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### Introduction

### Purpose

This test plan describes the testing approach and overall framework that will drive the testing of the Graveyard Management System (GMS) (<https://gms.bluedot.ltd/login>) web application. The document introduces:

* Test Strategy: Rules the test will be based on, including the givens of the project (e.g.: start/end dates, objectives, assumptions); description of the process to set up a valid test (e.g.: entry/exit criteria, creation of test cases, specific tasks to perform, scheduling).
* Execution Strategy: Describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
* Test Management: Processes to handle the logistics of the test and all the events that come up during execution (e.g.: communications, risk and mitigation, testing team)

### Project Description

This project is about to simplify management of graveyards. GMS will offer a digital platform so that registers can digitally input records, receive payments, and avoid having to submit reports. Considering that GMS will do all tasks in the background. Using GMS, system administrators may quickly and simply monitor the status of cemeteries with a few clicks. Locating a record will be quick and simple, and printing a burial certificate will be all that is required. The internet platform allows citizens to request burial certificates and make reservations while also collecting money.

### Pre-requisites/Assumptions

* One assumption about the product is that it will always be used on modern browsers that have html5, CSS3 and JQuery support. If the browser is not updated the users might face some issues with the interactivity and visualization. We assume that extra documentation beyond this SRS would not be necessary for the user to utilize this product.
* Team must be provided with access to application, hardware, software and other tools that are needed to deliver the testing services that are in-scope for this engagement.
* The application, system setup and environment for testing will be ready for testing and made available as when required.
* All the builds and patches being deployed are notified to the testing team.
* All relevant test data required for testing will be available in the testing environment.

### Scope of Testing

* 1. **Functional**

|  |  |  |
| --- | --- | --- |
| **Test Item** | **Version** | **Description** |
| Admin | 1.0 | All the Submodules and Scenarios under Admin |
| Register | All the Submodules and Scenarios under Register |
| Data Entry | All the Submodules and Scenarios under Data Entry |
| Member | All the Submodules and Scenarios under Member |

### Features to be Tested

### Features to be Tested -Functional:

| **Module** | **Sub Module** | **Sub-Sub Module** | **Test Scenario** |
| --- | --- | --- | --- |
| Home |  |  | Verify UI and functionality for Home |
| Log in |  |  | Verify UI and functionality for Login |
| Sign Out |  |  | Verify UI and functionality for Login |
| Create Account |  |  | Verify UI and functionality for Create Account |
| Forgot Password |  |  | Verify UI and functionality for Forgot Password |
| Admin | Dashboard |  | Verify UI and functionality for Dashboard |
| Graves | New Grave | Verify UI and functionality for this module |
| All Grave | Verify UI and functionality for this module |
| Reset Grave | Verify UI and functionality for this module |
| Useable Graves | Verify UI and functionality for this module |
| Burials | New Burial | Verify UI and functionality for this module |
| All Burials | Verify UI and functionality for this module |
| Today’s Burials | Verify UI and functionality for this module |
| Week’s Burials | Verify UI and functionality for this module |
| Month’s Burials | Verify UI and functionality for this module |
| Year’s Burials | Verify UI and functionality for this module |
| Graveyards | New Graveyard | Verify UI and functionality for this module |
| All Graveyard | Verify UI and functionality for this module |
| Users | New User | Verify UI and functionality for this module |
| All User | Verify UI and functionality for this module |
| Services | New Service | Verify UI and functionality for Dashboard |
| All Services | Verify UI and functionality for this module |
| Service Display | Verify UI and functionality for this module |
| Reports | Daily Report | Verify UI and functionality for this module |
| Weekly Report | Verify UI and functionality for this module |
| Monthly Report | Verify UI and functionality for this module |
| Yearly Report | Verify UI and functionality for this module |
| Payments | All Payments | Verify UI and functionality for this module |
| Complete Payments | Verify UI and functionality for this module |
| Pending Payments | Verify UI and functionality for this module |
| Canceled Payments | Verify UI and functionality for this module |
| Statistics |  | Verify UI and functionality for this module |
| System Backup |  | Verify UI and functionality for this module |
| Register | Dashboard |  | Verify UI and functionality for this module |
|  | Graves | Useable Graves | Verify UI and functionality for this module |
| Burials | New Burial | Verify UI and functionality for this module |
| All Burials | Verify UI and functionality for this module |
| Today’s Burials | Verify UI and functionality for this module |
| Week’s Burials | Verify UI and functionality for this module |
| Month’s Burials | Verify UI and functionality for this module |
| Year’s Burials | Verify UI and functionality for this module |
| Data Entry Operator | Dashboard |  | Verify UI and functionality for this module |
| Burials | New Burial | Verify UI and functionality for this module |
| All Burials | Verify UI and functionality for this module |
| Today’s Burials | Verify UI and functionality for this module |
| Week’s Burials | Verify UI and functionality for this module |
| Month’s Burials | Verify UI and functionality for this module |
| Year’s Burials | Verify UI and functionality for this module |
| Member | Edit Profile |  | Verify UI and functionality for this module |
| SMS Notification |  | Verify UI and functionality for this module |

### Features Not to be Tested

| **Module** | **Test Scenario** |
| --- | --- |
| Certificate Issuer | N/A |
| Order Manager | N/A |

### Document References



### Testing Environment

Test environment will be set up following the convention. We will maintain separate environment for testing.

### Operating Systems

Windows Server

### Networks

* LAN Setup

### Hardware

* Processor: Intel(R) Core(TM) i5-7300HQ CPU @ 2.50GHz 2.50 GHz
* Memory: 16.0 GB
* System Type: 64-bit operating system, x64-based processor

### Software

* Microsoft Excel for Test Case Specification
* Bugzilla for Defect Tracking

### Test Deliverables

* Test Plan
* Test Cases
* Test Results

### 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 by the GMS (Graveyard Management System Authority & Bluedot Technology Ltd) |
| 2.Test Plan is completed and signed off by Graveyard Management System Authority & Bluedot Technology Ltd stakeholders |
| Functional | Test Case Authoring | 1.Functional Walkthrough is completed | 1.Review is completed, and test cases are signed off by the GMS (Graveyard Management System Authority & Bluedot Technology Ltd) |
| 2.All the queries related to the functionality are clarified by the GMS |
| 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 Graveyard Management System Authority & Bluedot Technology Ltd |
| 2.Critical & severity defects are closed |

### Acceptance Criteria Functional:

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

### Testing Tools

* Bugzilla for defect management

### Testing Team

SQTC Team:

| **POC** | **Designation** |
| --- | --- |
| Zahid Mohammad Feroz | Test Manager |
| Saad Ahmed Sadi | Tester |

### Stakeholders

Bluedot Technology Ltd.

### Responsibilities

|  |  |  |
| --- | --- | --- |
| **POC** | **Role** | **Responsibilities** |
| Zahid Mohammad Feroz | 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 |

### 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

**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 of <https://gms.bluedot.ltd/login> (GMS) 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 | 1-Mar-23 | 2-Mar-23 | 1-Mar-23 | 2-Mar-23 |  |
| Test Case Authoring | 5-Mar-23 | 7-Mar-23 |  |  |  |
| Test Case Execution | 8-Mar-23 | 16-Mar-23 |  |  |  |
| Defect Verification | 19-Mar-23 | 20-Mar-23 |  | -- |  |
| Reporting & Closure | 21-Mar-23 | 23-Mar-23 |  |  |  |

### Test Monitoring and Reporting

### Monitoring

N/A

### 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 GMS |
| 2. Test Cases to be reviewed and signed off by the GMS. |
| 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 | Lots of data input in different module | Functional | Most probable | Business | High | Each module is taking a good amount of input data under a unique no. so accuracy of input should be tested. |
| 2 | Verification for some of action not implement at present |  | Most probable | Business | Medium | Modules like “Certificate Issuer” and “Order Manager” are not active yet, need to handle carefully. |
| Functional |
|  |
| 3 | Dependency on another user’s input | Functional | Most Probable | Business | High | One user module is highly dependent on another user module input so dependency should be tested carefully. |

### Plan Contingencies

N/A

### Communication Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **E-mail** | **Cell/Landline** |
| Test Manager | Zahid Mohammad Feroz | zahid.feroz@bcc.gov.bd | - |
| Test Lead | Saad Ahmed Sadi | Saad.sadi@bcc.gov.bd | +880 1719134734 |

### 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** |
| SRS | System Requirement Specifications |
| GMS | Graveyard Management System |
| KT | Knowledge Transfer |
| Dev Team | Development Team |