**REVOLUTIONARY GOVERNMENT OF ZANZIBAR**

**e-Government Agency**



**DIGITAL PROJECT RECORDS MANAGEMENT SYSTEM (DPRMS)**

**SYSTEM REQUIREMENT SPECIFICATION DOCUMENT**

**September 2023**

**Software Requirements Specification (SRS)**

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| --- | --- |
| **Project Title** | **Digital Projects Records Management System.** |
| **Version Approved** | **Version 1.** |
| **Prepared by** | **Team members.** |
| **Organization** | **Zanzibar e-Government Agency.** |
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# Revision History

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| **Name** | **Date** | **Reason for Changes** | **Version** |
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# Introduction

Zanzibar e-Government Agency is a public institution established through the Act, No. 12 of 2019 responsible for coordinating, overseeing and promoting e-government initiatives as well as enforce e-Government Agency related policies, laws, Regulations, Standards and Guidelines for Public Institutions.

It also has the function of managing all the ICT-related projects of the revolutionary government of Zanzibar where different public organizations and institutions must submit their concept notes and Terms of References (TOR) to the Zanzibar e-Government Agency where it will approve the development of the project after satisfying that the project meets certain criteria where the institution will be allowed to proceed with the development of their system.

Zanzibar e-Government Agency must also identify and acknowledge all the ICT-related projects in the revolutionary government of Zanzibar. However, the challenges facing Zanzibar e-Government Agency is that the information systems are not registered/known and there is a need for a streamlined approval process for new systems development, we propose the creation of the Digital Projects Records Management System (DPRMS). The DPRMS will serve as a comprehensive solution to address the lack of visibility into existing government information systems and facilitate a standardized process for proposing, approving, and managing new system projects across various government offices.

## 1.1 Purpose

Zanzibar e-Government Agency has a role to identify and acknowledge all the ICT-related projects in the revolutionary government of Zanzibar. However, the challenges facing Zanzibar e-Government Agency is that the information systems are not registered/known and there is a need for a streamlined approval process for new systems development, we propose the creation of the Digital Projects Records Management System (DPRMS). The DPRMS will serve as a comprehensive solution to address the lack of visibility into existing government information systems and facilitate a standardized process for proposing, approving, registering and managing new and old system projects across various government offices.

## 1.2 Intended Audience and Reading Suggestions

This document is intended for DPRMS stakeholders including Parliament Tanzania, e-Government Agency, System Designers, System Analysts and System Developers as a reference for developing the DPRMS and its implementation.

## 1.3 Product Scope

The DPRMS is a software solution designed to provide all necessary algorithms and data to users to automate the process of projects approval, registration, storing and monitoring within a Zanzibar e-government agency.

After completion of this projects the system is going to register information institutions which undergoes particular project and their projects information not only that but also corrections of projects will be done by this system and users will be notified for approval. More over the system will need user to upload different documents that were used in planning, designing, development and etc.

By bringing down the conclusion the system will be able to manage those processes and operations that were mentioned above.

# Overall Description

## 2.1 Product Perspective

Digital Project Record Management System (DPRMS) will be used by different institution IT officers (Project Managers), Zanzibar e-Government Agency’s Head of division (Project Division Managers), and Managing director of Zanzibar e-Government Agency.

## 2.2 User Classes and Characteristics

The three types of user for the DPRMS are:

* Admin (Managing Director of Zanzibar e-Government Agency).
* Staff user (Zanzibar e-Government Agency Head of Division.
* Institution User (IT Officer).

The following table describe general users’ characteristics that will affect functionality of the software product.

|  |  |  |  |
| --- | --- | --- | --- |
| **User Type** | **User characteristic** | **User Technical Expertise** | **How the user characteristic and**  **technical expertise affects**  **DPRMS functionality** |
| Admin | Good understanding of  Staff operations    Responsible for staff  operations.  Responsible for projects  staff managing | Average in technical  proficiency | User interface with less input  steps.  Easy to learn. |
| Staff user | Good understanding to  rules operations.    Responsible for projects  operations.  Responsible for projects examining and approval. | Average in technical  proficiency | User interface with less input  steps.  Easy to learn. |
| Institute User | (Diverse user  characteristic)  IT officers of different public institutions tends to register projects that they are using or need to be developed. | A lot of exposure | GUI interface may be easier to  learn than text interface.    Provide system help  Provide appropriate error  messages for invalid user inputs. |

## 2.3 Operating Environment

1. Access security
2. All credentials such as user names/identifiers/account numbers (user IDs) and user passwords must be kept confidential and must not be disclosed to an unauthorized part.
3. Each User of the system access software must have a unique login credentials.
4. User IDs and passwords shall only be assigned to authorized individuals based on least privilege necessary to perform job responsibilities.
5. User IDs and passwords must not be shared, posted, or otherwise divulged in any manner.
6. Password policy implementation:
   1. Not easily guessable (i.e. your name or company name, repeating numbers and letters or consecutive numbers and letters)
   2. Contain a minimum of eight (8) alphabetic and numeric characters for standard user accounts
   3. For interactive sessions (i.e. non-system-to-system) ensure that passwords/passwords are changed periodically (every 90 days is recommended)
7. Passwords (e.g. user/account password) must be changed immediately when:
   1. Any system access software is replaced by another system access software or is no longer used
   2. The hardware on which the software resides is upgraded, changed or disposed, any suspicion of password being disclosed to an unauthorized party
8. Ensure that passwords are not transmitted, displayed or stored in clear text; protect all end user (e.g. internal and external)
9. Implement password protected screensavers with a maximum fifteen (15) minute timeout to protect unattended workstations. Systems should be manually locked before being left unattended.
10. Active logins to credit information systems must be configured with a 30-minute inactive session timeout.
11. Accessibility
12. The system accessible through public network should in cooperate public security certificate to ensure secure communication.
13. The system accessible through private network should be isolated from public network and in cooperate secure channel communication.
14. Availability
15. The system should be available 99.982% of the time when system is fully operational.
16. The system should have a redundancy to ensure availability.
17. The system shall have regular backups to ensure continuity,
18. The system will undergo maintenance as per Hosting Facility schedule and operating procedures
19. Confidentiality
20. Authorized information should only be accessed by authorized personnel only
21. Information confidentiality should be implemented based on the system owner’s privacy policy.
22. Efficiency
23. The system should produce the correct output in terms of quantity and quality
24. The system should provide the correct output in the minimal time possible
25. Integrity
26. Identify, report, and correct information and information system flaws in a timely manner.
27. The system owner should develop and adhere to a formal, documented System & Information Integrity program that addresses:
    1. Flaw Remediation
    2. Malicious Code Protection
    3. Information System Monitoring
    4. Spam Protection
    5. Information Handling and Retention
28. Reliability
29. The system should be designed to achieve a specific goal
30. The system should cater a defined documented business process/Requirements
31. Usability
32. System usability should be specified, e.g., user task performance, user satisfaction, learnability, memorability?
    1. Time to learn
    2. Speed of performance
    3. Rate of errors by users
    4. Retention over time
    5. Subjective satisfaction
33. These requirements may interact, and so should be prioritized for an application.

## 2.4 User Documentation

Along with the development of the DPRMS, training and User Manual will be provided to assist system users to use the system effectively.

## 2.5 Constraints, Assumptions and Dependencies

**2.5.1 Constraints**

* The project must properly manage the time as planned so that it can execute the defined timeline from a project schedule.
* The team members to meet expectations of the administration requirement from the project by completing the project within normal working hours.
* The project milestone to achieve the desired outcome by the acquisition of funding and resource allocations approved.
* The project team must include the scope roadmap of the project requirement for project managers.

**2.5.2 Assumptions and Dependencies**

Assumption undertaken in the requirement documentation is that for a system user to access the system authentication has been made through the login process. The use cases, workflows and descriptions does not include login process as an assumption that system user has already accessed the system and proceeds with other operations.

Assumption undertaken in the production process is that, there is availability of appropriate technical infrastructure, including servers, databases, and network resources, to support the development and deployment of DPRMS.

# 3 External Interface Requirements

## 3.1 User Interfaces

The System shall have different user-friendly User Interfaces when accessing it. Each of group of stakeholders shall be able to view what is needed to be viewed by that party. System admins, Librarians and Library users, each will have a UI with the system.

## 3.2 Software/Hardware Interfaces

Since the DPRMS shall be integrated with other systems, APIs shall be developed by both ends between DPRMS and another system to enable exchange of data and information between DPRMS and other Systems. More details on these software interfaces between DPRMS and other external software can be found in details in a documentation between DPRMS and a respective software/Hardware.

## 3.3 Communications Interfaces

## Communications Interfaces

As part of its implementation, DPRMS shall have capability to send notifications to stakeholders using SMTP. DPRMS shall use Simple Mail Transfer Protocol (SMTP) as a standard protocol for sending emails to stakeholders from a Notification module which shall be implemented within the system.

## 4.1 System Feature 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Req. ID** | **Functionality** | **Input** | **Output** | **Requirement Description** |
| **User Management** | | | | |
| UM – 001 | Adding new user (Institute, Staff, administrator) | The project shall allow the system administrator to register a new user. Information to be captured include:   * Name (First Middle and Last Name) * E-Mail * Designation * Employee Id * Phone Number * Division (Select) * Office (Branch)   Once the user is registered, the system should allow the system administrator to assign a role to the users.  The system should have the capability to retrieve users from another Identity Management System (i.e. DPRMS, Active etc.) | Success or failure notification  A confirmation e – mail to be generated with a one-time. | **Pre – Condition:**   * An authorized user with appropriate roles * Administrative user information to be added.   **Normal Flow:**   1. The project shall provide a platform for the Administrator to enter user information 2. Once entered and saved, the system shall generate a onetime password which will be sent to the user email (Preferably Government E-mails) 3. The confirmation e-mail should have validity of 15 minutes. 4. On first login, the system shall prompt the user to change password. 5. If the confirmation email expires, the system shall prompt the user to resend the confirmation email.   **Post – Condition:**   * Information stored shall be utilized by other system features * System shall display success and failure messages * The system shall retain an audit trail for each action. |
| UM - 002 | View all user list | Navigation option to manage users | A list of all registered users separated by taps with different statuses   * Active users * Disabled users | **Pre – Condition:**   * An authorized user with appropriate roles * Already registered user   **Normal Flow:**   1. The user shall be able to navigate to the manage user’s menu 2. Once select, the system shall view list of all available users.   **Post – Condition:**  For each user shown, there should be multiple options adjacent   * Edit * Disable |
| UM - 003 | Modifying User information | Information to be modified in every user includes but not limited to   * Name (First Middle and Last) * E-Mail * Designation * Employee ID * Phone Number * Division (Select) * Office (Branch)   The project should allow the administrative system admin to assign a role to the administrative users.  The system should also provide a platform to reset the user credentials | Modified user information.  Success or failure notification | **Pre – Condition:**   * An authorized user with appropriate roles * Already registered user * Changes of user information   **Normal Flow:**   1. The user shall be able to navigate to the edit option 2. The system shall provide a platform for the user to input the changes in information. 3. The system shall provide a platform for the user to save the changes   **Post – Condition:**   * Information stored shall be utilized by other system features * System shall display success and failure messages * The system shall retain an audit trail for each action. |
| UM - 004 | Disabling user | Navigation option to disable user | Disabled user | **Pre – Condition:**   * An authorized user with appropriate roles * Already registered user   **Normal Flow:**   1. The user shall be able to navigate to the disable option 2. Once selected, the system shall prompt the user to verify id the action is correct. 3. Once the approval has been granted, the system shall disable the user.   **Post – Condition:**   * System shall display success and failure messages * The system shall retain an audit trail for each action |
| UM - 005 | Resetting user Password | Navigation option to reset user password | Reset user credentials  Reset e-mail | **Pre – Condition:**   * An authorized user with appropriate roles * Already registered user * Changes of user credentials   **Normal Flow:**   1. The system shall provide platform for the admin to reset user password 2. The system shall provide a platform for the user to request a password change 3. Once any of the options are selected, the system shall generate a onetime password which will be sent to the user email (Preferably Government E-mails) 4. The confirmation e-mail should have validity of 15 minutes. 5. On first login, the system shall prompt the user to change password. 6. If the confirmation email expires, the system shall prompt the user to resend the confirmation email.   **Post – Condition:**   * System shall display success and failure messages * The system shall retain an audit trail for each action |
| PM  001 | Register Project | The Project shall allow the Notification to register a new System project. Information to be captured includes:   * Notification.   The system shall also store the digital document information received from TOR/Concept Note | Success or failure notification  New project registered | **Pre – Condition:**   * An authorized user with appropriate roles   **Requirements:**   1. The project shall allow the user to navigate notified Management menu 2. The system shall provide an option to add new Institute project 3. The system shall receive document information from document scanner 4. The project shall allow the user to input the information required 5. The project shall allow the user to save the information   **Post – Condition:**   * Information stored shall be utilized by other system features * System shall display success and failure messages * The system shall retain an audit trail for each action. |
| PM  002 | View project list | The system shall allow the user to view all point and their statuses | Success or failure notification | **Pre – Condition:**   * An authorized user with appropriate roles * Already registered project   **Requirements:**   1. The project shall allow the staff user to view a list of all document 2. The system shall display a list of projects registered, categorized as unattached and attached documents   **Post – Condition:**   * Information stored shall be utilized by other project features * Project shall display success and failure messages * The Project shall retain an audit trail for each action. |
| PM  003 | Update Project | The system shall allow the user to delete a Project  (If the DPRMS has been assigned to an active institute project, then the system should restrict Update of the project) | Success or failure notification | **Pre – Condition:**   * An authorized user with appropriate roles * Already registered project   **Requirements:**   1. The project shall provide a platform for the user to update all project   **Post – Condition:**   * Information stored shall be utilized by other system features * System shall display success and failure messages * The system shall retain an audit trail for each action. |
| IU  001 | Register Number of teams of Institution DPRMS | The project shall allow the DPRMS to register project teams. Information to be captured includes:   * Number of teams * Number sequence (Start number and end) | Success or failure notification  Team institution registered | **Pre – Condition:**   * An authorized user with appropriate roles   **Requirements:**   1. The project shall allow the user to navigate to building registration 2. The project shall provide a platform for the user to input the required 3. The project shall allow the user to save the information   **Post – Condition:**   * Information stored shall be utilized by other system features * Project shall display success and failure messages * The project shall retain an audit trail for each action. |
| IU  002 | Modify Number of team under Institution | The project shall allow the DPRMS to modify a building the information. Information to be modified includes:   * Number of team * Number sequence (Start number and end) | Success or failure notification  Teams Institution modified | **Pre – Condition:**   * An authorized user with appropriate roles   **Requirements:**   1. The project shall provide a platform for the user to modify the shelves information 2. The project shall provide a platform to input alteration of the initial information 3. The project shall allow the user to save the information   **Post – Condition:**   * Information stored shall be utilized by other system features * Project shall display success and failure messages * The project shall retain an audit trail for each action. |
| IU  003 | Delete Number of teams under Institution | The project shall allow the user to delete a team under Institution  (If the Institution contains already assigned team members then the system should restrict deletion) | Success or failure notification | **Pre – Condition:**   * An authorized user with appropriate roles   **Requirements:**   1. The project shall provide a platform for the user to delete a team.   **Post – Condition:**   * Information stored shall be utilized by other system features * Project shall display success and failure messages * The project shall retain an audit trail for each action. |