

MINI PROJECT – IS2106

GN Management System Group 21

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APPROVAL OF MINI PROJECT

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1. Introduction

1.1 Purpose

The purpose of this system analysis report is to present a detailed of the gn management system project, aimed at modernizing and digitizing administrative processes within grama niladhari division. This reports outlines the project scope , stakeholder analysis , requirement analysis , use case diagram and also er diagram. It server as a foundation for the development of the gn management system, facilitating informed decision-making and successful project execution.

1.2 Document Conventions

The document was created in Microsoft Word 2019 with the font 'Times New Roman'. The headings are with the font size 20pts, sub-headings 16pts, and the content was typed using a fixed font size of 12pt with 1.15 line spacing. It has set the document's heads using the bold attribute. Except for the cover page, all pages are numbered; the numbers appear in the page's bottom right-hand corner. Each image and data table are numbered.

1.3 Intended Audience and Reading Suggestions

The intended Audiece of this document would be Grama Niladharis , Government officials and Residents.

1.4 Project Scope

The Grama Niladhari manages all the data, such as personal details, allowances , land-related details, government services manually for the people living in the village. This will be very difficult and trying task for the village officials. This is not efficient and correct data is not entered into the system. Many data entry errors occur. In our GN management system can solve above several issues and The Village officer can handle the system easier and more efficiently.

In this system allows to Grama Niladhari's to manage essential data related to individuals, households. There are more functionalities include adding new individuals, updating information and maintaining accurate records.

Grama Niladhari can use system to handle public services requests submitted by people within their division. And people can submit their requests for public services such as obtaining official documents , reporting incidents and seeking assistance.

The system facilitated the management of land ownership records such as land ownership, transfers and disputes

In above project scope in detail, stakeholders can have a clear understand about the objectives , functionalities and deliverable of this GN Management system.

2. Stakeholder Analysis

2.1 Identify Stakeholders

Primary Stakeholders

- **Grama Niladharis** They are the primary users of the system and they are responsible for managing administrative tasks within their respective Grama Niladhari divisions.
- **Residents** They are the individuals living in the village who interact with the system to request public services and provide information.
- **Government officials** Officials at various levels responsible for overseeing the project allocating resources.

Secondary Stakeholders

- **System Administrators** IT professionals responsible for server maintenance , database management and user support.
- **Development Team** Development team include developers , designers , testers and other technical staff. They are responsible for development and implementation of the GN Management System/.

2.2 Understand Stakeholder Needs and Expectations

- **Grama Niladharis** They need user-friendly interfaces for data entry ,quick access to relevant information and support for efficient administrative processes.
- **Residents** They are expect easy access to public services , mechanisms for providing feedback and reporting issues.
- **Government officials** Require comprehensive reporting capabilities, tools for monitoring GN performance, and integration with existing government systems.

3. Requirement Analysis

3.1 Use Case

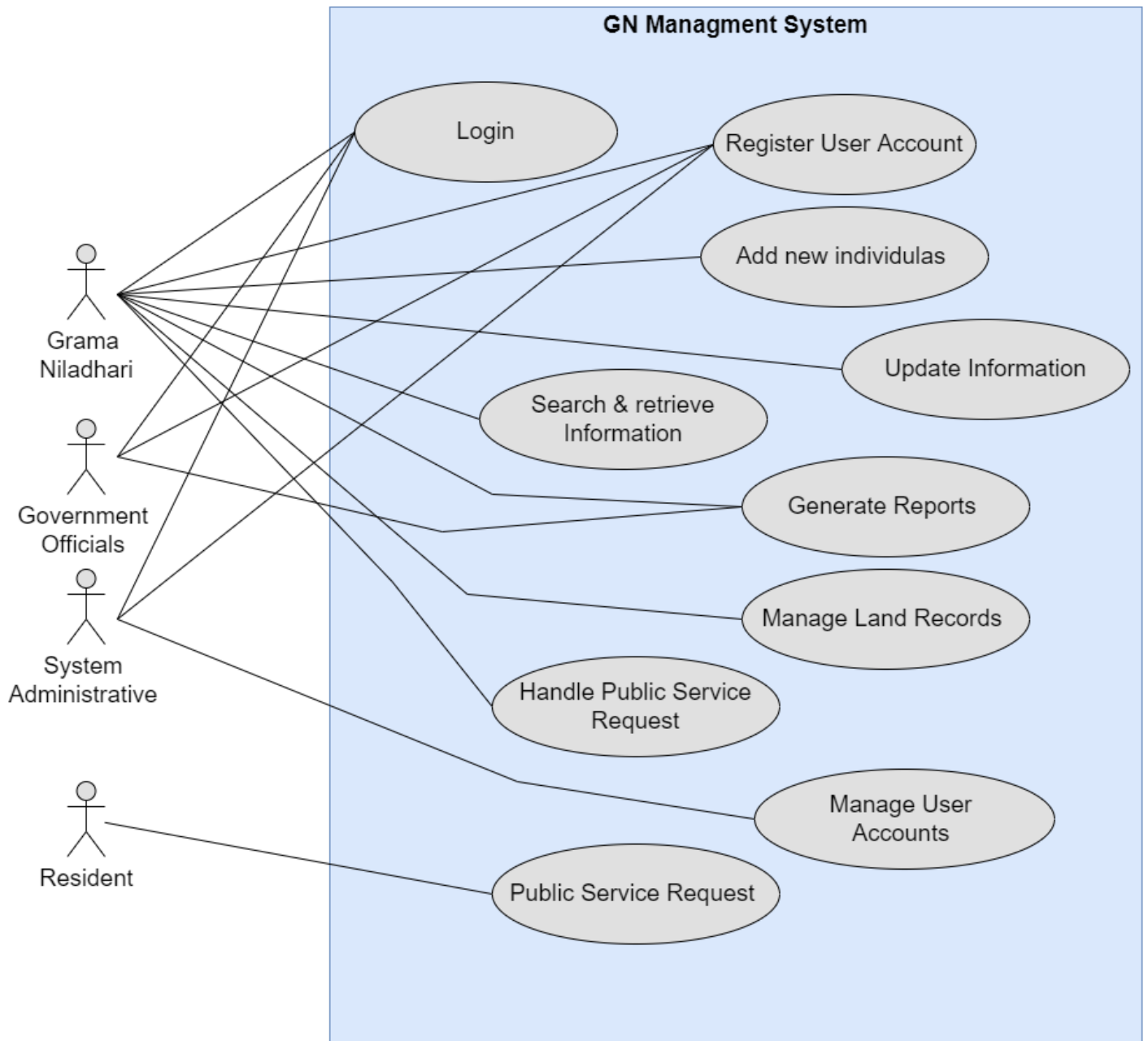


Figure 1: Use Case Diagram

3.2 Functional Requirements

User Authentication:

- **Secure Login:** Implement a secure login system for Grama Niladhari officers using username and password authentication.
- **Role-Based Access:** Assign different access levels or roles such as admin, officer, or viewer with specific permissions to ensure role-based access control and data security.

Data Entry Form

- **Resident Details Form:** Provide a structured form to capture resident information including name, address, contact details, family members, and occupation.
- **Household Information Form:** Design a form to collect household details such as structure type, Income, Assets and property, subsidies, Medical conditions, amenities, ownership status, and occupancy details.
- **Local Event and Community Activity Form:** Create a form to record local events, community activities, or meetings with details like event name, date, time, location, and attendees.

Search and Retrieval:

- **Search Functionality:** Implement a robust search functionality allowing officers to search for resident, household, or event data based on various criteria such as name, address, event date, etc.
- **Data Retrieval:** Enable officers to retrieve and view detailed information of residents, households, or events from the database quickly and efficiently.

Data Export:

- **Export Options:** Provide options to export data in CSV or PDF formats to facilitate data sharing, reporting, and printing.
- **Customizable Reports:** Allow officers to customize reports by selecting specific data fields, date ranges, or criteria before exporting to CSV or PDF formats.

3.3 Non Functional Requirements

Performance:

- **Scalability:** The app should efficiently handle multiple concurrent users without any performance issues, ensuring a smooth and responsive user experience even during peak usage times.

Security:

- **Role-Based Access Control:** Implement role-based access control (RBAC) within the Android app to ensure that only authorized users can access specific functionalities and data, thereby preventing unauthorized access and maintaining data security.

Usability:

- **Intuitive Interface:** Design an intuitive and user-friendly interface tailored for Android devices with clear navigation and easy-to-understand layouts to facilitate easy data entry and navigation within the app.

Compatibility:

- **Mobile-Friendly Design:** Develop a responsive and mobile-friendly design that adapts to various Android screen sizes and resolutions, ensuring optimal user experience across different devices.

4. Data Analysis

4.1 ER Diagram

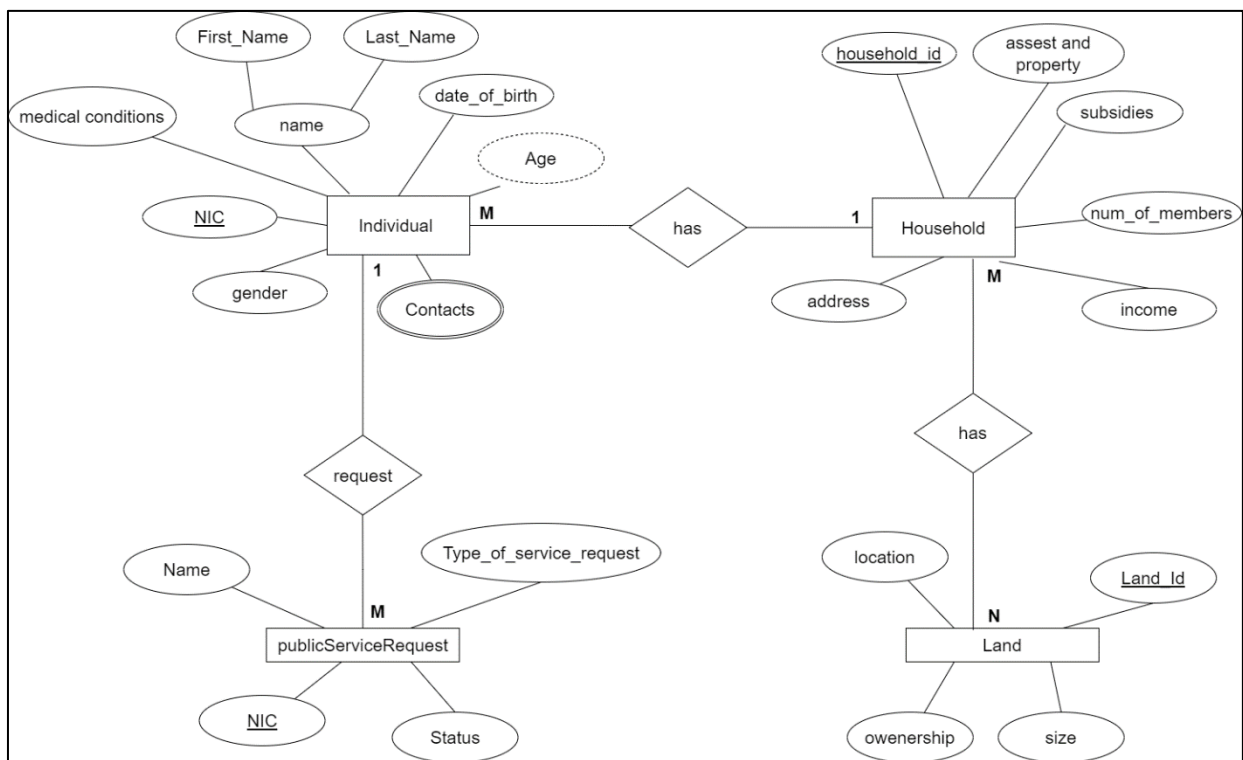


Figure 2:ER Diagram