

SRS

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SRS Village Announcement System

Software Requirements Specification Village Announcement System

1. Introduction

1.1 Purpose of the Project

The purpose of the Village Announcement System is to create a digital platform that replaces traditional village notice boards with a modern, inclusive, and accessible solution. It allows administrators to post announcements in both text and audio formats, ensuring that all villagers - including those with limited literacy or language proficiency - can receive important updates.

The project is designed to be lightweight, mobile-friendly, and usable on low-end devices.

1.2 Scope of the project

The system is a PHP-based web application that enables village authorities to publish categorized announcements. It supports multilingual content, voice playback, and responsive design for mobile devices. The scope includes.

- Admin panel for managing announcement
- Public-facing interface for villagers
- Audio playback for accessibility
- Support for multiple languages
- Optimized performance for low-bandwidth environment

1.3 Project Overview

The Village Announcement System is built with accessibility and simplicity at its core. It uses PHP and MySQL for backend logic, Tailwind CSS for styling, and JavaScript for interactivity. The system is designed to be developed in rural settings where digital literacy and infrastructure may be limited. It empowers communities by making information universally understandable and available.

1.4 Real-World Context

In many villages, traditional notice boards are ineffective for reaching all residents. Literacy barriers, language diversity, and lack of centralized communication make it difficult to disseminate important information. This project addresses those

challenges by offering a digital solution that speaks to the community - literally. By integrating voice playback and multilingual support - it ensure that no villagers are left out of the loop.

2 General Description

2.1 Product Functions

- Admin control (Create / edit / delete)
- Multilingual text / audio announcements
- Voice playback
- Responsive mobile layout
- Categorization & filtering

2.2 Similar Systems

SMS alert systems, municipal bulletin boards
(with less accessibility support)

2.3 User Characteristics

- Varied literacy levels
- Regional language
- Basic tech usage
- Low - Data connectivity

2.4 User Problem Statement

Lack of inclusive communication limits information access in rural areas.

2.5 User Objectives

- View and hear announcements in preferred language
- Access via mobile
- Admins manage content easily

2.6 General Constraints

- Compatible with Smartphones
- Low-bandwidth optimized
- Secure & Simple interface

3 Functional Requirements

- FR₁: Admin login
- FR₂: Create / edit / delete notices
- FR₃: Display by category
- FR₄: Notification alerts, push notifications
- FR₅: Search / filter function
- FR₆: Responsive mobile UI
- FR₇: Multilingual Support
- FR₈: Audio playback per notice

4 Interface Requirements

4.1 User Interfaces

- Admin dashboard
- Public announcement board
- Language switches
- Voice playback buttons.

4.2 Hardware Interfaces

- Smartphone, desktop & tablets (No special Hardware)

4.3 Communication Interfaces

- Internet (HTTP/HTTPS)

4.4 Software Interfaces

- PHP, MySQL
- Tailwind CSS
- JavaScript

5 Performance Requirements

- Load under 3s on 3G
- Audio starts < 1s
- 100 users concurrently
- Instant admin update reflection.

6 Non-Functional Attributes

6.1 Security

- Admin login
- SQL injection protection
- HTTPS encryption.

6.3. Reliability

- 99% uptime
- Graceful error handling

6.4. Maintainability

- Modular code
- Docs for contributors
- Editable translation / audio

6.5. Portability

- Cross-browser / device compatibility
- No installation needed

6.6. Extensibility

- Push notification
- SMS / Whatsapp integration
- Role-based access

6.7. Reusability

- Announcement module for other platforms
- Audio Component adaptable

