

Gold Mandal Management System

Abstract, Description & Final Feature List

Abstract

The Gold Mandal Management System is a web-based application developed to manage mandal-style money collection and gold-based lucky draw operations in a transparent, efficient, and automated manner. The system eliminates manual calculations, reduces human errors, and provides real-time updates for both administrators and users. It supports flexible collection amounts, multiple lucky draws per round, and automatic adjustment of extra amounts, making it ideal for community-based gold mandals.

Project Description

This project consists of two main panels: an Admin Panel and a User Panel. The Admin Panel allows complete control over member management, money collection, payment tracking, lucky draw configuration, winner selection, and gold stock management. The User Panel is a view-only interface designed for public display, showing live lucky draw results and collection status. The system follows strict business rules such as one-time collection per round, rounded per-member payments, carry-forward of extra amounts, and separate execution of multiple lucky draws using a single collection.

Admin Panel Features

- Secure admin login and session management
- Member management (add, edit, activate, deactivate)
- One-time money collection per round
- Smart per-member amount calculation (rounded up)
- Automatic extra amount carry-forward
- Payment tracking (paid / pending)
- Multiple lucky draws per round
- Separate start for each lucky draw
- Winner management and history
- Gold biscuit stock management
- Reports and data export
- Real-time system updates

User Panel Features

- Live display of collection and draw status
- Lucky draw result display
- Winner and gold biscuit details
- Draw history view
- View-only access (no login required)

Core Business Logic

- Collection amount can change every round
- Total amount is divided equally among all members
- Per-member amount is always rounded up
- Extra amount is calculated after rounding
- Extra amount is adjusted in the next round
- 100% payment completion required before lucky draw
- Single collection supports multiple lucky draws
- One winner per draw

Technology Stack

Node.js, Express.js, MongoDB, EJS, HTML, CSS, JavaScript, Bootstrap, Socket.IO