

# Akshaya Resorts – Room Monitoring

## 1. Abstract

This project titled “Akshaya Resorts – Room Monitor” is a web-based application developed to monitor and manage room-related activities in a hospitality environment. The system helps track work status such as pending, partial, and completed tasks for each room. It also supports role-based access, data backup, and report export features to improve efficiency and organization.

## 2. Introduction

In hotels and resorts, managing room maintenance and work status manually can be time-consuming and error-prone. This project introduces a digital solution that allows staff and administrators to monitor room work in real time. The application provides an interactive dashboard to view, update, and manage room tasks efficiently.

## 3. Objective of the Project

The main objectives of this project are:

- To monitor room work status digitally
- To reduce manual record-keeping
- To provide a simple and user-friendly dashboard
- To allow easy filtering and tracking of room activities
- To support data backup and report generation

## 4. Scope of the Project

This project is mainly useful for:

- Resorts and hotels
- Room maintenance staff
- Administrators who manage room activities

The system can be expanded in the future to include mobile access, real-time notifications, and database connectivity.

## 5. Functionality Summary (Detailed)

Function/Element	What it does	For Your Report
<b>Viewer / Staff / Admin Roles</b>	Lets different users log in or view different sections	Explain user access roles
<b>Toggle Theme</b>	Switch UI colors (light/dark)	UI customization
<b>Jump / Clear</b>	Quick navigation / reset filters	User interaction improves ease
<b>Backup / Restore JSON</b>	Save or load app data	Data management
<b>Export .xlsx</b>	Saves reports in Excel format	Reporting & analysis
<b>Activity Log</b>	Displays recent actions	Audit trail feature
<b>Quick Filters</b>	Filters tasks by status	Helps view important tasks
<b>Add Work / Mark Completed</b>	Edit room tasks	Task management panel

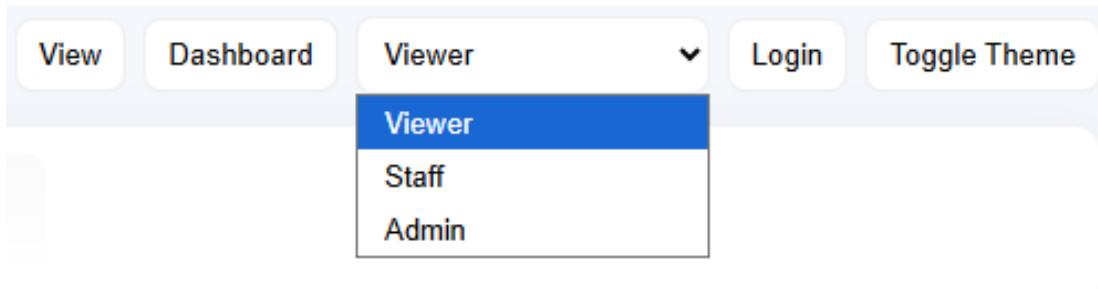
## 6. System Overview

The **Akshaya Resorts – Room Monitor** is a web application consisting of multiple panels such as a header section, dashboard, activity log, and room management panel. Each panel plays a specific role in displaying and managing room-related data.

## 7. Description of Modules

### 7.1 Header Module

- Displays the application title
- Provides role selection (Viewer / Staff / Admin)
- Includes theme toggle option



### 7.2 Dashboard Module

- Shows overall room status
- Allows quick filtering of tasks
- Displays completed, pending, and partial works



### 7.3 Global Work Panel

- Displays all work types
- Allows filtering based on selected work
- Provides backup and export options

**Global Work Panel** Click a work to filter

Search rooms / works

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Jump Clear Backup JSON  
Restore JSON Export .xlsx

Backup stores images as base64. Keep backups safe.

## 7.4 Activity Log Module

- Records all actions performed
- Shows recent updates and changes
- Helps in tracking work history

The screenshot shows a user interface for the Activity Log module. At the top left is the title "Activity Log". To its right is a section titled "Recent actions" which contains a single log entry: "11/26/2025, 5:54:44 PM — Admin authenticated for Dashboard". Below this entry is a button labeled "Clear Log".

## 7.5 Room Management Module

- Add or update room work
- Mark tasks as completed
- Apply changes to multiple rooms

The screenshot shows a user interface for the Room Management module. It displays a list of work items for "Room A1" (ID: A1). The list includes one item under the category "Electrical (1)". The item details are: Name: "Switches", Status: "No image", Purpose: "None", Remarks: "None", and Image: "No image". There are buttons for "Edit", "Delete", "+ Sub Work", "Rename", and "Apply to ALL". At the bottom of the list are buttons for "Save", "Mark All Completed", and "Copy From...".

## 8. Functional Requirements

- User login and role-based access
- Room work status update
- Filtering and search functionality
- Data backup and restore
- Export data to Excel

## 9. Non-Functional Requirements

- Easy to use interface
- Fast response time
- Secure data handling
- Browser compatibility

## 10. Technologies Used

- **HTML** – Structure of the website
- **CSS** – Styling and layout
- **JavaScript** – Functionality and interactivity
- **Netlify** – Hosting platform

## 11. Advantages of the System

- Saves time and effort
- Reduces paperwork
- Easy monitoring of room status
- Accurate record management

## 12. Limitations / Known Issues

- No server-side — all data is stored/exported manually; no real-time multi-user sync.
- Role-based access is superficial (since no real authentication system).
- JSON backups (especially with images as base64) could become large and may not scale for many rooms or long-term use.
- UI/UX could be improved: design is functional but basic.
- No user-management, no undo/redo, no official database — not suitable yet for a large-scale production resort.

## 13. Challenges & How They Were Addressed

- **Data persistence without a backend:** Since this project is a front-end only (hosted via static hosting), there is no server-side database. To work around this, I implemented **JSON-based backup & restore** and **.xlsx export**, so data can be saved offline or moved between sessions.
- **Handling images / media in backups:** Backup stores images as base64 inside JSON — this ensures no external dependencies for assets, but increases JSON size. I added a warning in the UI: *“Keep backups safe.”*
- **Role-based access on static site:** Without a real authentication backend, login/role toggle may be simplistic (e.g. selecting role manually). This is a limitation — but acceptable for demo/portfolio purposes.
- **Responsive UI / Cross-browser compatibility:** Ensuring layout, filters, and export features work across different devices and browsers required testing.

## 14. Future Enhancements

- Database integration
- Mobile application support
- Real-time notifications
- User authentication system

## 15. Conclusion

This project, *Akshaya Resorts — Room Monitor*, demonstrates a functional, front-end only web application that can serve as a basic room/work tracking dashboard for small hospitality setups. While currently limited by the lack of backend or true authentication, it can act as a prototype and a demonstration of fundamental web development skills (HTML / CSS / JS). With further enhancements (backend, better UI, authentication, persistent storage), it can evolve into a more robust application suitable for real-world deployment.