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۲. رَحْمَةُ اللهِ وَكَرَمُهُ

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- Simplify room reservations and occupancy tracking.



- Improve financial management and payment monitoring.
- Enable real-time analytics for decision-making.
- Provide a user-friendly interface for both administrative staff and the general public.
- Digitally transform the council's room management operations.

2. System Architecture Overview

The system consists of **two main components**:

A. Public Booking Portal

- Accessible to the general public for viewing room availability and submitting booking requests.
- Allows secure online payments and booking confirmations.
- Displays room details, rates, and policies.
- Sends automatic email/SMS confirmations.

B. Administrative Portal (Nafaavehi Admin)

- Restricted access for authorized council staff.
- Centralized management of bookings, rooms, payments, users, and analytics.
- Integrates with payment and SMS systems.

3. System Modules (Admin Portal)

1. Dashboard

A centralized overview page providing real-time operational metrics:

- Total rooms, available rooms, and occupancy rate.
- Daily and monthly booking summaries.
- Revenue overview with trends.
- Pending tasks and payment alerts.
- Quick links to most-used modules.

Example Data Shown:

- Total Rooms: 7
- Today's Bookings: 49
- Monthly Revenue: MVR 8,350
- Occupancy Rate: 0% (real-time updates)

2. Room Management

Comprehensive management of all rooms and facilities.

Key Functions:

- Add, edit, or remove rooms with details such as name, number, capacity, type, and daily rate.
- Mark room status: *Vacant*, *Occupied*, *Reserved*, or *Under Maintenance*.
- Search and filter rooms by property or status.
- Bulk management of multiple rooms.

Sample Fields:

- Room Number: 201
- Room Name: "Statehouse Room"
- Capacity: 2



- Rate: MVR 500/night

3. Booking Management

Handles all reservations, both public and internal.

Features:

- View active, pending, confirmed, or cancelled bookings.
- Search and filter bookings by date, guest, or room.
- Bulk booking tool for group reservations.
- Generate invoices and quotations directly from bookings.
- Access a visual **booking calendar** to track room occupancy by day and color-coded statuses (Vacant, Reserved, Check-in, Check-out, Maintenance).

Booking Fields Include:

- Booking ID
- Guest Name & Contact
- Room Number
- Check-in/Check-out Dates
- Purpose (Internal/Public)
- Payment Status (Paid, Pending, Cancelled)
- Amount (Auto-calculated based on stay duration and rate)

4. Finance & Payments

A complete financial module integrated with *BML Connect* for online payments and *Dhiraagu Bulk SMS* for alerts.

Functions:

- Track all transactions (date, amount, method, status).
- Identify pending payments and outstanding balances.
- Auto-generate revenue summaries for daily, monthly, and annual reports.
- Export data to XLSX or PDF for auditing.
- Manage multiple bank accounts (Primary & Secondary).

Example Insights:

- Total Revenue (All time): MVR 17,850
- Monthly Revenue: MVR 750
- Outstanding Balance: MVR 9,800
- Pending Payments: 11

Supported Payment Methods:

- Bank Transfer (BML)
- Internal Transfers (for council bookings)
- Online Payment Gateway (BML Connect)

5. User Management

Manages user access and system permissions.

Roles:



- ### Functions:



Examples:

- **Booking Confirmed:** Confirmation message with booking ID and check-in/out details.
- **Booking Cancelled:** Notification with reason and support contact.
- **Booking Completed:** Thank-you message post-checkout.
- **Admin Alerts:** Sent to all admins when new bookings are made.

Variables:

{{guest_name}}, {{room_number}}, {{check_in}}, {{check_out}}, {{total_amount}}, {{booking_id}},
{{status}}

5. System Integrations

Integration	Description	Purpose
Dhiraagu Bulk SMS	XML-based API endpoint	Send automated booking and alert messages
BML Connect	Bank of Maldives Payment Gateway	Enable online payments for guests
Excel Export	Built-in XLSX export function	Data export for finance and analytics reports

6. Technical Overview

Aspect	Details
Platform Type	Web Application (Cloud or On-Premise)
Frontend	React.js / Vue.js (Responsive Design)
Backend	Laravel / Node.js (RESTful API architecture)
Database	MySQL
Hosting	Linux Server or Cloud VPS
Security Features	HTTPS, Role-based Access, Encrypted Credentials, Automated Backups
Notification Channels	Email (SMTP), SMS (Dhiraagu API), In-App
Browser Compatibility	Chrome, Safari, Firefox, Edge
Backup Frequency	Every 24 hours (configurable)

7. Future Scalability

The system can be expanded to include:

- **Guest Portal** for booking and payment history.
- **Mobile App** for Android/iOS.
- **QR Code Check-in system.**
- **Integration with national ID verification APIs.**

8. Key Benefits

For Council	For Users/Guests
Automated booking and payment processing	Seamless booking experience
Real-time analytics and revenue tracking	Transparent room pricing
Centralized data for all facilities	Instant SMS/email confirmations



For Users/Guests

Secure online payments

Reliable record of transactions

Reduced administrative workload

Quick and easy communication

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