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# HOTEL SHREE KRISHNAYA VASUDEVAYA

Rayagada, Odisha â€¢ Master Technical Architecture & ERP Specification (39 Integrated Enterprise Subsystems)

âœ¦ Architected & Delivered by: **NSAIAGENCY7777** â€¢ Lead Executive: **N.LEELA RAKESH** â€¢ Mobile: 9390553301 (+91 93905 53301)

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**SYSTEM 01** SPATIAL TWIN

### ðŸ“¸ 360Â° Panoramic Virtual Tour

`ðŸ“‚ src/components/VirtualTour360Modal.jsx`

Equirectangular spherical room inspection engine with drag rotation, zoom, auto-spin, and interactive golden beacon hotspots for Mandir altar & balcony.

**SYSTEM 02** BIM DIGITAL TWIN

### ðŸ¢ 3D Architectural Cutaway Explorer

`ðŸ“‚ src/components/FloorExplorer3DModal.jsx`

Interactive 3D isometric cutaway map across Ground, 1st, 2nd, and 3rd floors displaying room occupancy states and 2D technical…

**SYSTEM 03** NAVIGATION

### ðŸ§ Vedic Azimuth & Corridor Wayfinding

`ðŸ“‚ src/components/FloorExplorer3DModal.jsx`

Real-time compass azimuth pointing toward Maa Majhighariani Sanctum & Jagannath Mandir with corridor distance and elevator wayfinding…

**SYSTEM 04** ZERO COMMISSION

### ðŸ›Žï¸ Dynamic D2C Room Booking Engine

`ðŸ“‚ src/components/BookingModal.jsx`

Real-time calendar check-in/out date calculation, guest headcount validation, dynamic pricing calculator, and zero-commission reservation…

**SYSTEM 05** SMART VOUCHER

### ðŸªª Digital Pilgrim Pass & QR Receipt

`ðŸ“‚ src/components/BookingReceiptModal.jsx`

Automated branded booking confirmation pass with unique Booking ID, statutory tax breakdown, guest summary, and scannable check-in QR…

**SYSTEM 06** PILGRIM CONCIERGE

### ðŸ›• VIP Darshan & Yatra Concierge Desk

`ðŸ“‚ src/components/SpiritualServices.jsx`

Specialized reservation module for VIP temple passes, Chandi Homam puja thali dispatch, Chatikona transport, and senior-citizen escorts.

**SYSTEM 07** CONTACTLESS POS

### ðŸ² Contactless In-Room Dining Platform

`ðŸ“‚ src/components/FoodOrderModal.jsx`

Mobile dining menu with QR standee deep-linking (?room=204), live dish categories, cart aggregation, and room-billed order routing.

**SYSTEM 08** PURITY STANDARD

### ðŸŒ¿ 100% Satvik Dietary Classification

`ðŸ“‚ src/components/SatvikDining.jsx`

Granular filters for pure Desi Cow Ghee preparation, No Onion, No Garlic, and Vrat/Upvas (fasting) compliant menus with chef notes.

**SYSTEM 09** PMS MATRIX

### ðŸ“… 14-Day Visual Tape Chart & PMS Matrix

`ðŸ“‚ src/components/RoomTapeChart.jsx`

Enterprise two-week timeline grid tracking room occupancies, guest names, check-in dates, and vacant slots across all hotel suites.

**SYSTEM 10** HOUSEKEEPING

### ðŸ§¹ Live Housekeeping & Turnaround Monitor

`ðŸ“‚ src/components/ReceptionAdmin.jsx`

Four-tier real-time room status manager (Available, Occupied, Cleaning, Maintenance) with audio alert chimes upon status updates.

**SYSTEM 11** ROOM STANDEE

### ðŸ·ï¸ Smart Room QR Standee Generator

`ðŸ“‚ src/components/RoomQrModal.jsx`

Automated generator of branded guest standee QR codes and digital key access tokens linking guests straight to their room ledger.

**SYSTEM 12** LOSS PREVENTION

### ðŸ” Digital Checkout Inspection & Clearance

`ðŸ“‚ src/components/CheckoutInspectionModal.jsx`

Structured digital departure checklist verifying key return, minibar audit, linen inspection, and zero outstanding bill balance.

**SYSTEM 13** AUDIT ENGINE

### ðŸŒ™ Automated Night Audit & Day-End Rollover

`ðŸ“‚ src/components/NightAuditModal.jsx`

End-of-day financial audit closing business registers, calculating RevPAR, verifying ledger balances, and rolling over hotel dates.

**SYSTEM 14** FLOAT CONTROL

### ðŸ’µ Cash Drawer Float & Shift Reconciliation

`ðŸ“‚ src/components/FinancialAnalytics.jsx`

Real-time audit tracking front-desk opening cash float, cash receipts, UPI/online logs, and handover balances between shift staff.

**SYSTEM 15** ASSET LIFECYCLE

### ðŸ§º Hotel Linen & Asset Depreciation Tracker

`ðŸ“‚ src/components/LinenAssetTracker.jsx`

Inventory tracker monitoring 500 GSM towels, duvet covers, brass lamps, and laundry turnaround cycles with wear-and-tear alerts.

**SYSTEM 16** HR PAYROLL

### ðŸ‘¥ Staff Payroll & Salary Advance Ledger

`ðŸ“‚ src/components/StaffSalaryManager.jsx`

HR module managing front-desk sewaks, housekeeping, and kitchen staff attendance, monthly wages, advance disbursements, and net pay.

**SYSTEM 17** AI ASSISTANT

### ðŸ¤– 24/7 Virtual Pilgrim AI Concierge

`ðŸ“‚ src/components/AiConcierge.jsx`

Conversational sacred assistant providing temple aarti timings, darshan guidelines, Rayagada cultural etiquette, and direct booking…

**SYSTEM 18** STATUTORY LAW

### ðŸ›¡ï¸ India DPDP Act 2023 Statutory Privacy Suite

`ðŸ“‚ src/components/PrivacyNoticeModal.jsx`

Statutory bilingual privacy notice, Data Principal rights self-service portal, cookie banner, and CERT-In breach reporting runbook.

**SYSTEM 19** EDGE DATABASE

### â˜ï¸ Serverless Cloud Relational Sync Engine

`ðŸ“‚ functions/api/sync.js & schema.sql`

Offline-first local-to-cloud bidirectional database sync ensuring zero data loss even during front-desk internet disconnections.

**SYSTEM 20** EDGE SECURITY

### ðŸ”” Audio Chime Alerts & HTTP Security Shield

`ðŸ“‚ src/utils/soundAlert.js & public/_headers`

Web audio chimes for new guest orders coupled with military-grade Content Security Policy, anti-clickjacking, and CORS defense.

**SYSTEM 21** CASH LEDGER

### ðŸ§¾ Daily Petty Cash & Vendor Expense Ledger

`ðŸ“‚ src/components/FinancialAnalytics.jsx & schema.sql`

Operational cash expense tracker (Cow Milk, Flowers/Puja, Generator Diesel, Vegetables) with payment modes and Owner Approval status.

**SYSTEM 22** BIOMETRIC SYNC

### â±ï¸ Staff Daily Attendance & Shift Engine

`ðŸ“‚ src/components/StaffSalaryManager.jsx & schema.sql`

Daily check-in tracker (Present, Half-Day, Absent, Leave) for all sewaks and staff, automatically linking with payroll for earned wage…

**SYSTEM 23** RBAC SHIELD

### ðŸ” Owner PIN Security & Access Control (RBAC)

`ðŸ“‚ src/components/ReceptionAdmin.jsx & schema.sql`

Encrypted 4-digit Master Owner PIN gate (1008) locking sensitive profit ledgers, staff wage records, and financial night audits from clerks.

**SYSTEM 24** REPUTATION

### ðŸŒŸ Pilgrim Social Proof & Google Review Engine

`ðŸ“‚ src/components/ReviewsSection.jsx`

Verified devotee testimonials showcase and automated redirection to Google Maps review portal to maximize the hotel's 5-star ranking.

**SYSTEM 25** GST STATUTORY

### ðŸ“Š Indian 5% Hospitality GST Tax Engine

`ðŸ“‚ src/components/BookingModal.jsx & schema.sql`

Automated statutory 5% GST computation on room rates and dining orders, generating legally compliant tax split invoices and passes.

**SYSTEM 26** LEGAL BYLAWS

### ðŸ“œ Sanctuary Spiritual Bylaws & Conduct

`ðŸ“‚ src/components/TermsOfServiceModal.jsx`

Legally binding guest bylaws covering strict Vaishnav sanctity (zero alcohol/smoking/non-veg), silent meditation hours, and visitor curfews.

**SYSTEM 27** EXECUTIVE AI CENTER — ðŸ‘‘ Owner Center: Real-Time P&L Telemetry & Internal Audit Watchdog

### ðŸ‘‘ Executive Owner AI Copilot & Watchdog

`ðŸ“‚ src/components/OwnerCopilotModal.jsx`

PIN-secured executive intelligence center with real-time P&L telemetry, internal audit anomaly detection, Rayagada festival dynamic pricing advisor, and 1-click WhatsApp night report.

**SYSTEM 28** RAYAGADA DARSHAN

### ðŸ›• Maa Majhighariani Smart Darshan Advisor

`ðŸ“‚ src/components/DarshanAdvisorModal.jsx`

Live day-of-week rush telemetry (Tuesday/Saturday peak alerts), queue wait-time predictor, Chandi Homam puja thali pre-order dispatch, and pre-…

**SYSTEM 29** TRI-LINGUAL GATEWAY

### ðŸŒ Tri-Lingual Regional Gateway (EN/OD/TE)

`ðŸ“‚ src/data/translations.js & App.jsx`

Dynamic trilingual engine seamlessly switching between English, à¬“à¬¡à¬¼à¬¿à¬† (Odia), and à°¤à±†à°²à±à°—à± (Telugu) across all…

**SYSTEM 30** B2B CORPORATE

### ðŸ¢ Corporate Executive B2B Portal

`ðŸ“‚ src/components/CorporatePortalModal.jsx`

B2B portal for executives of JK Paper Mills, IMFA Therubali, Utkal Alumina, & Railway with automated GSTIN Input Tax Credit billing and 10s DigiCheck-in.

**SYSTEM 31** 432HZ AUDIO

### ðŸŽ¶ Rayagada Dhyana Audio Synthesizer

`ðŸ“‚ src/components/RayagadaDhyanaPlayer.jsx`

Web Audio API real-time 432 Hz synthesizer delivering Maa Majhighariani Chandi Stotram, Jagannath Gita Govinda, Chatikona…

**SYSTEM 32** CULINARY RELAY

### ðŸ› Dual Odia & Andhra Satvik Culinary Relay

`ðŸ“‚ src/components/SatvikDining.jsx & FoodOrderModal.jsx`

Regionally tailored dual culinary engine preparing 100% pure desi ghee dishes without onion/garlic, bridging authentic Odia temple classics and…

**SYSTEM 33** EDGE VISION AI — ðŸŒ Benchmark: Japan (Henn na Hotel) â€¢ Singapore â€¢ Smart Indian Kitchens

### ðŸ“¹ Edge CCTV Computer Vision & Kitchen Hygiene AI

`ðŸ“‚ NSAI_Vision_Edge_CCTV_AI_8_Steps_Implementation_Blueprint.pdf`

Uses existing IP/CCTV cameras with edge AI models (YOLOv8/TensorFlow Lite) to detect: staff uniform/hairnet compliance in the Satvik kitchen, luggage left unattended, front desk queue wait times exceeding 3 minutes, and unauthorized entry after hours.

**SYSTEM 34** DYNAMIC RMS — ðŸŒ Benchmark: Las Vegas (Duetto, IDeaS) â€¢ Dubai Luxury Yield RMS

### ðŸ“ˆ AI Dynamic Rate & Revenue Yield Engine (RMS)

`ðŸ“‚ src/utils/dynamicRateEngine.js & src/components/OwnerCopilotModal.jsx`

Adjusts room tariffs automatically based on: Maa Majhighariani festival calendar (Chaitra Yatra, Tuesdays/Saturdays rush), train arrival schedules at Rayagada junction, local weather, and competitor occupancy. Raises rates during peak demand and offers automated corporate flash discounts during lean weekdays.

**SYSTEM 35** GOV FORM-C AI

### ðŸªª AI Guest Aadhaar OCR & Form-C

`ðŸ“‚ src/components/AiOcrCheckInModal.jsx & schema.sql`

Guest snaps photo of Aadhaar/Passport. AI extracts Name, DOB, Address, UID, auto-populates Police Form-C / Guest Register, & verifies ID in 3s. Cu…

**SYSTEM 36** GREEN IOT AI

### â„ï¸ Smart HVAC & Energy Saving AI (IoT)

`ðŸ“‚ src/components/SmartEnergyHvacModal.jsx & functions/api/iot.js`

AI analyzes room occupancy from PMS. The moment guest checks out or steps out for temple Darshan, AC auto-optimizes. Cuts monthly hotel…

**SYSTEM 37** REPUTATION AI

### ðŸŒŸ AI Reputation Sentinel & Auto-Responder

`ðŸ“‚ src/components/AiReputationSentinel.jsx & ReviewsSection.jsx`

Scrapes Google Maps, TripAdvisor, MakeMyTrip every 15m. Writes culturally respectful responses in guest's language, flags complaints to Owner…

**SYSTEM 38** CA & GST TAX ENGINE — 🏛 Statutory Compliance: Indian GST Act Sec 122 • GSTR-1, GSTR-3B & In…

### ⚖️ Chartered Accountant (CA) & GST Tax Compliance Engine

`📁 src/components/FinancialAnalytics.jsx & public/invoice.html`

Automates monthly GSTR-1 & GSTR-3B tax reconciliation specifically built for the hotel's Chartered Accountant. Splits SAC 9963 (Room Tariff) & HSN 996331 (Satvik F&B), calculates CGST 2.5% + SGST 2.5%, maps B2B Corporate ITC claims, and…

**SYSTEM 39** BIOMETRIC HARDWARE SYNC — 🕒 Hardware Standard: eSSL SilkBio / Matrix COSEC LAN Time-Clock

### 👆 Hardware Biometric Staff Attendance & Payroll Sync

`📁 src/components/StaffSalaryManager.jsx & schema.sql`

Integrates on-premise biometric fingerprint & 3D facial recognition terminals (eSSL / Matrix over LAN/WiFi). Captures real-time staff punch IN/OUT timestamps, detects late arrivals and shift overtime, and directly feeds verified work hours into the automated monthly salary slip and net payout…

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ENTERPRISE PLATFORM SCOPE

**39 Core Subsystems (Full Hotel Operating System)**

PMS, Spatial Digital Twin, Regional Pilgrim, B2B Industrial, Edge Vision AI, Green IoT, CA GST Engine & Hardware Biometrics

OTA COMMISSION SAVINGS

**100% Commission-Free**

Direct D2C Bookings â€¢ Eliminates 18%â€“25% OTA commissions

ARCHITECTURE STANDARD

**Rayagada Edge Cloud**

Cloudflare Pages Edge â€¢ Sub-second Latency Nationwide

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