

Karnataka Government Hospital & Hospitality Portal – System Description

Overview

This web-based application is a comprehensive Government Hospital and Hospitality Management Portal designed for the public health system of Karnataka. The system simulates a large-scale database comprising over 1,500 government hospitals, including district hospitals, taluk hospitals, specialty hospitals, medical college hospitals, and primary health centres. The portal enables citizens to search for hospitals, view bed availability, and submit service or bed requests, while providing hospital staff with a secure dashboard to manage incoming patient requests efficiently.

Public Hospital Information Portal

The public-facing section of the portal allows users to explore hospitals across all districts of Karnataka. Hospitals are displayed in a structured and visually clear card-based layout, grouped district-wise for ease of navigation. Each hospital record includes the hospital name, category, address, total bed capacity, available beds, ICU beds, general beds, accommodation facilities for patient attendants, and key medical services offered.

A district-based filtering mechanism enables users to quickly narrow down hospitals within a specific region. Real-time visual indicators highlight bed occupancy levels, helping users assess availability at a glance. The interface is responsive and accessible across devices, ensuring usability on both desktop and mobile platforms.

Patient Service and Bed Request System

The portal includes an integrated request system that allows patients or their relatives to submit enquiries for hospital services or bed availability. Requests can be made for general consultation, maternity services, ICU beds, general ward beds, or accommodation for attendants. Each request is submitted through a structured form that captures patient details and contact information.

It is clearly stated that submitted requests are enquiries rather than confirmed bookings. Upon submission, users receive on-screen confirmation notifications, and the request is forwarded to the relevant hospital staff for further action.

Hospital Staff Login and Dashboard

A secure staff login system is provided for hospital personnel. After authentication, staff members gain access to a dedicated dashboard tailored to their role. Doctors, nurses, and administrators can view patient requests assigned to their hospital in a centralised request queue.

Each request displays patient details, reason for visit, date and time, bed requirement status, and urgency level. Staff can accept or reject requests, ensuring transparent and timely decision-making. All actions are reflected immediately in the system and summarised through live statistical indicators.

Administrative Controls and Bed Management

Administrative users have access to an advanced control panel. This panel allows administrators to manage hospital staff accounts, assign roles, define staff shifts, and maintain operational notes. In addition, administrators can configure hospital bed capacities by category, such as general beds, ICU beds, and paediatric beds.

Bed capacity updates are reflected in real time across the system, ensuring consistency between hospital availability data and incoming patient requests. This feature supports effective resource planning and improves responsiveness during high-demand situations.

Technical Design and Implementation

The application is built using standard web technologies including HTML, Tailwind CSS for responsive design, and JavaScript for dynamic behaviour. Client-side data persistence is achieved through the browser's local storage, allowing the system to simulate real-world data handling without a backend server.

The modular design, clear separation of concerns, and scalable data simulation approach make this system suitable for academic projects, demonstrations, and conceptual models of large-scale e-governance healthcare platforms.