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Progress 4 Presentation



Frontend Changes + Updated Dashboard

Hospital bed overview
View real-time occupancy across all wards, and update the status of individual beds.

Occupancy
33%
14 of 43 beds in use

Bed status
Available 11 Occupied 8 Reserved 10 Cleaning 8 Transferring 6

New admissions
Reserved space for Grafana admissions chart.

Wards overview
Current occupancy by ward.

| Ward | Beds | In Use | Available |
|-----------------|---------|----------|-------------|
| ICU North | 10 beds | 3 in use | 4 available |
| General East | 25 beds | 9 in use | 7 available |
| Isolation South | 8 beds | 2 in use | 0 available |

Update bed status

Patients

View current patients, their status, and admission details from the hospital data store.

Search by name or MRN

All statuses

All reasons

Filter

Patient

MRN

Admission status

Priority

Reason

EXPLORER

✓ CAPSTONE-F25-PROJECT-REPOSITORY-GROUP-5

> backend

✓ images

🖼 Med.jpg

✓ operations

manage-beds.css

▷ manage-beds.html

manage-rooms.css

▷ manage-rooms.html

patients.css

▷ patients.html

users.css

▷ users.html

✓ overview

▷ dashboard-backup.html

dashboard.css

▷ dashboard.html

insights.css

▷ insights.html

✓ shared

components.css

layout.css

login.css

▷ login.html

▷ sidebar.html

variables.css

Starting poster/documentation

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|--|--|---|
|  <p>GRAND VALLEY STATE UNIVERSITY COLLEGE OF COMPUTING</p> | <h1>Hospital Bed Management System</h1> <p>Jasmine Kue, Jacob Schorr, Stella Goodrich Advisor: Sorio Boit</p> | |
| <p>Abstract</p> <p>Our project presents a Hospital Bed Management System designed to improve efficiency and decision-making processes within hospital facilities. The system provides real-time visibility into bed occupancy, admissions, and discharges, allowing hospital administrators to make informed decisions based on historical and predictive analytics to forecast future bed demand. The system also facilitates the management of hospital resources, assigning beds, and planning for high-demand scenarios. By streamlining these processes, our system aims to reduce costs, increase patient satisfaction, and enhance overall hospital operational effectiveness.</p> | <p>Results/Implementation</p> <p>Implemented is Fresheus Authentication login page that securely signs in hospital staff.</p> |  |
| <p>Introduction</p> | | <p>Technical Details</p> <p>Fresheus Authentication</p> <ul style="list-style-type: none"> Website is deployed on GitHub Pages using HTML, CSS, and JS. Provides fast, reliable static hosting and automatic deployment via GitHub Actions. Authentication is implemented using Fresheus Authentication. Frontend: <ul style="list-style-type: none"> Fresheus handles Credential security, hashing, and salts. Login page communicates with Fresheus before displaying the user's information. Backend Architecture: <ul style="list-style-type: none"> Database is stored using MySQL & hosted on Google Cloud Platform. MySQL database stores and manages hospital data (beds, patients, admissions). Google Cloud Platform storage (Google Bigtable) <p>Design</p> <ul style="list-style-type: none"> SQL database hosted in GCF(Cloud SQL). <ul style="list-style-type: none"> MySQL database used for storing hospital data. MySQL used to create bed-reserving vessels. <p>Databases Schema</p> <ul style="list-style-type: none"> Tables: <ul style="list-style-type: none"> Admissions Patients Rooms Vitals Admissions Users Feedback  |
| | | <p>Future Work</p> |



Medbed Systems

User Guide & Documentation

Backend Completion and Testing

- CSV files now import correctly
- Fixed bugs with database
- Making sure data is “live”
- Continue testing
 - Fix “Update” buttons

The screenshot shows a web-based application interface for managing hospital beds. At the top, there is a navigation bar with icons for star, back, forward, and refresh. Below the navigation is a dropdown menu listing various bed entries. A specific entry, "Bed A108 (ICU North)", is highlighted with a blue selection bar. The main content area is divided into two sections: "Bed details" and "Patient details".
Bed details:
- Bed number: A108
- Status: occupied
- Type: ICU
- Ward: ICU North (Floor 2)
- Patient assigned: 274
Patient details:
- Patient ID: 274
- Name: John Johnson
- Age: 30
- Status: Discharged
- Bed status: occupied
- Bed type: ICU
- Ward: ICU North

