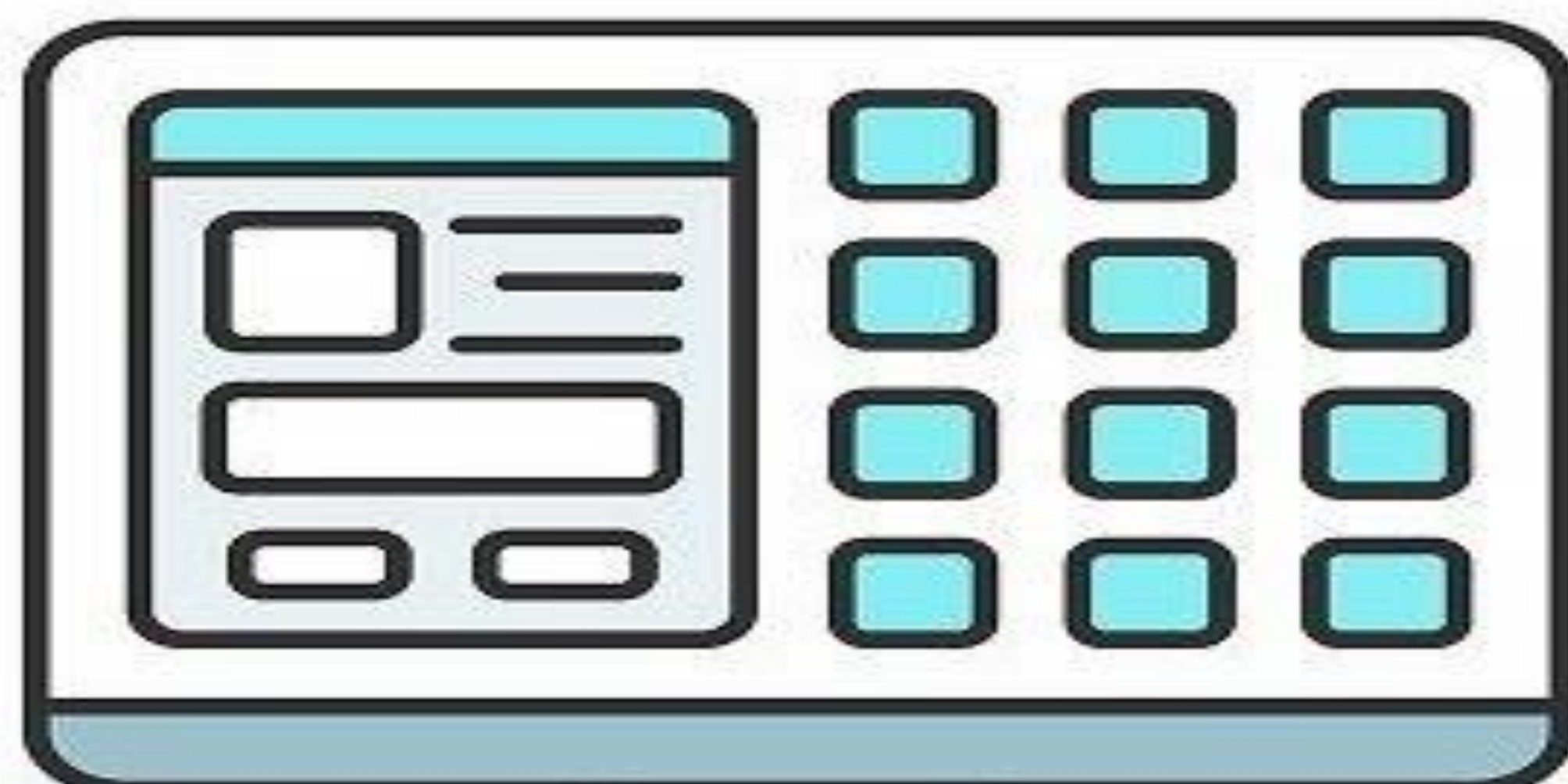# Have you ever wondered how hospitals were planned out?

A lot of planning goes into building and updating a hospital such as figuring out the power requirements not only for the hospital itself but for each room in that hospital. Adventium had an existing back end for this purpose that designers and planners used to plan and manage hospitals, but it was not user friendly being a command line interface level of design so they requested that we create a user friendly front end using React and Material UI.
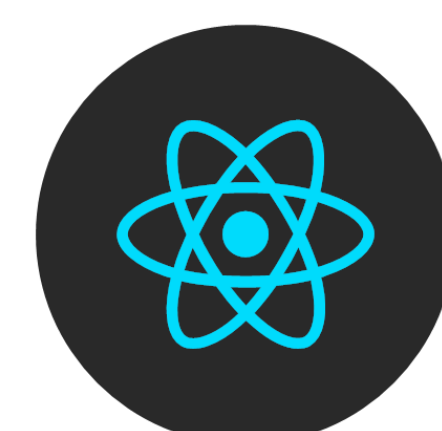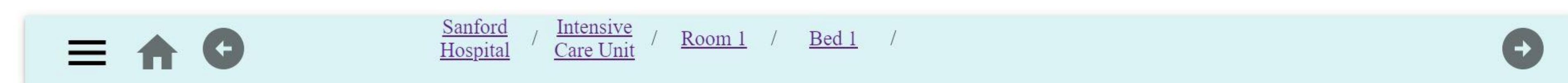
From this

To this

Solution: GUI using Material UI and React

How?

The basic proposed solution by Adventium was using a hierarchal design which allowed users to go through various parts of the hospital and have Information on each screen about that section of the hospital. The basic Hierarchy of the project is Hospital -> Unit -> Room -> Bed -> Medical Device. The information that needed to be displayed was for example the power consumption of a device or what networks were in the room. The basic layout of the project is top half of the screen information on the current area and below that information and links to the next thing in the hierarchy.
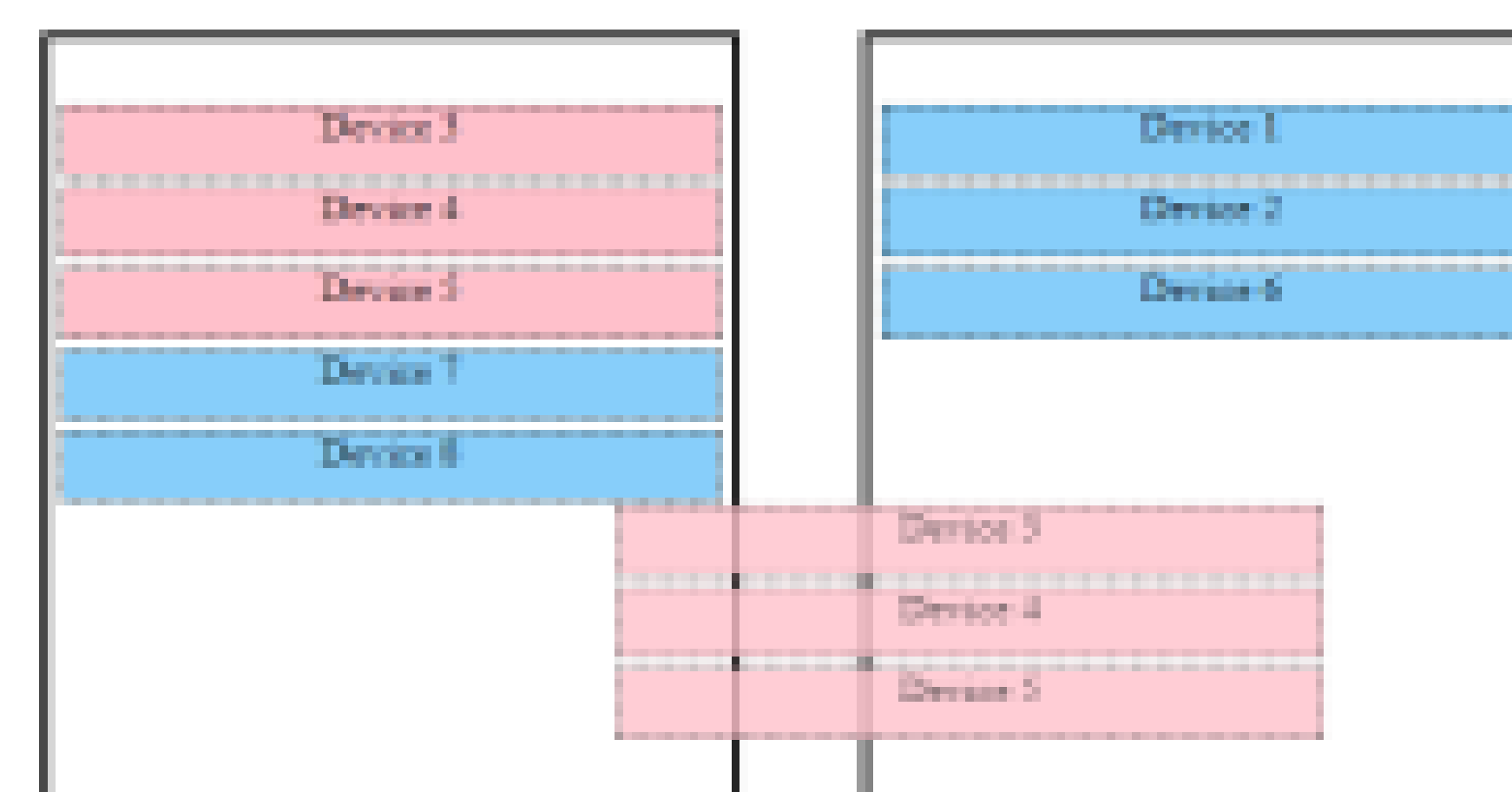
Results

Sanford Hospital / Intensive Care Unit / Room 1 / Bed 1

Bed 1 Information

Bed Name: Bed 1   **Patient**: Patient1

Patient Net: patientNet1   **Hospital Net**: hospitalNet1

UPS Power Budget: 100 KWH   **Normal Power Budget**: 100 KWH

Number of Devices: 5

Show Summary

Bed 1's Devices Table

DEVICE NAME	POWER CONSUMPTION ↑	POWER BUDGET	BANDWIDTH BUDGET
PCA	10 KWH	100 KWH	100 MBPS
EKG	20 KWH	200 KWH	200 MBPS
Capnometer	30 KWH	300 KWH	300 MBPS
Pulseox	40 KWH	400 KWH	400 MBPS

Room Design

Special features include easier navigation similar To a file system, sorting by table column, both summary and table views.