Submission: Hotel Room Reservation System

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Assessment: SDE 3 – Hotel Room Reservation System

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# Live App Link

https://687dfe94939251550d3fd9e3--statuesque-torrone-498df9.netlify.app/

# Code Repository

# <https://github.com/AbhishekDutta7120/Hotel-Reservation>

# Solution Explanation

Tech Stack:

* HTML, CSS, JavaScript (Vanilla)
* No backend – optimized for browser simplicity
* Responsive UI with floor-wise room visualization

Booking Logic:

1. Guests can book up to 5 rooms at once.
2. Booking prioritizes:

* Rooms on the same floor
* Minimizing total travel time (horizontal + vertical)

1. If not enough rooms are available on one floor:

* Closest available rooms are selected across floors

1. Horizontal travel = 1 minute/room  
    Vertical travel = 2 minutes/floor

Features:

* Book desired number of rooms
* Random occupancy generation
* Reset all bookings
* Real-time room visualization (color-coded)

Example Flow:

* Guest books 3 rooms
* System checks all floors for 3 adjacent available rooms
* If not found, picks closest group across multiple floors