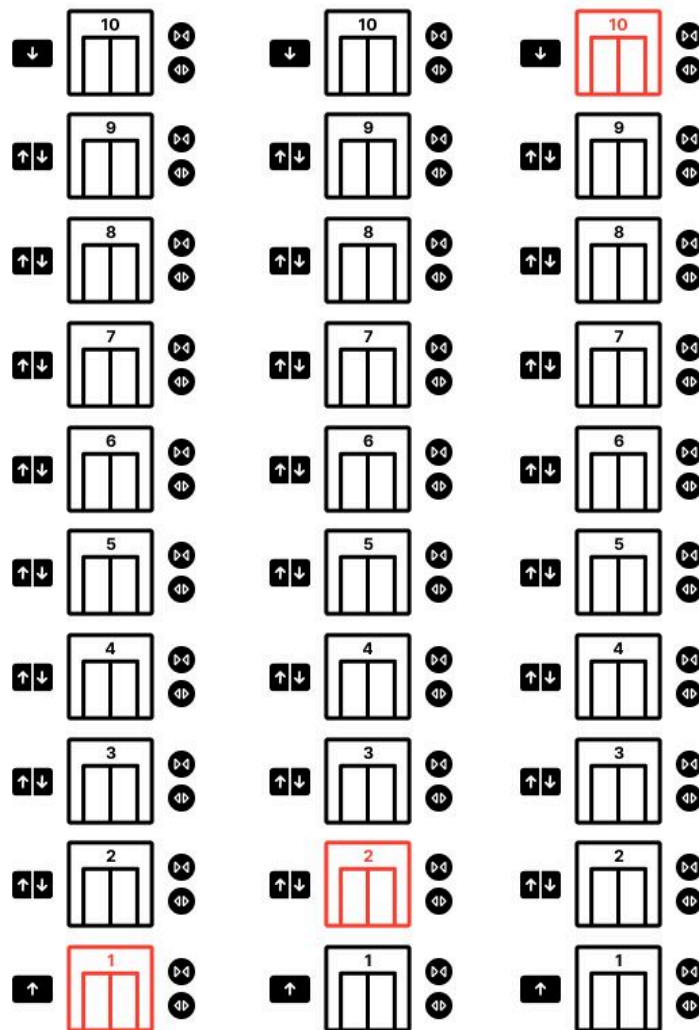


Bài Test 1: Làm bài test = nextjs + spring boot + mysql. Deploy gửi link test.







Node.js - Interview Test



Requirements: Develop an elevator simulator web app using Node.js as the backend and React.js as the frontend. The application should simulate the behavior of an elevator system, such as moving between floors, opening and closing doors, and managing passenger requests.

In this scenario, there should be **3 elevators** working in parallel in an office that has **10 floors**. The elevator system should be designed to handle multiple requests from passengers and allocate elevators efficiently to minimize wait times and maximize efficiency.



Instructions:

- At each floor, clicking  or  will call the **pending** elevator to come to that floor. Once the elevator arrives, the user can click the other floors as the destination.
- However, clicking  on a **going-down** elevator does not stop at that floor. Similarly, clicking  on a **going-up** elevator does not stop too. A **going** elevator only stops at the floor, which has the same direction. Example:
 - You are on **Floor 5**, and the elevator is going up from **Floor 1** to **Floor 10**. Clicking  makes the elevator stop at **Floor 5** (because you are going up), but clicking  does not stop the elevator as you have to wait for it to reach **Floor 10**, then going down and pick you up at next run

- At each floor, pressing  will keep the elevator door open, while clicking  will close the door immediately
- You must apply Object-Oriented Programming (OOP) techniques when developing the objects used in your code. This includes encapsulation, inheritance, and polymorphism.
- You can implement a very simplistic UI in the frontend, no need to create too fancy UI, but it must be React.js based
- You can push the working code to your personal GitHub repository, then send an invite to us for review

Deliverables:

- Due Date: You have **7 days** to prepare this coding test and **45 minutes** to present the strategy in the 2nd interview round
- The candidate is prohibited from disclosing any information related to the test to any third party.