Design Docs

Overview

Simulation a real world lift. This simulation would imitate a real world lift. By creating the model the working of the system can be understood better in the way. The simulation would help us know the actual working of the lift. How would the lift response when a request is made to it, the process in which it would serve to the requset and try to handel every situaiton in a efficient way.

Context

The simulation model would be built similar to the actual lift. It would have multiple lifts and multiple floors. When it should go to which floor. When should it open its doors, and when to close the door. What would happen if it is overloaded. What happen when it is out of order. What action should be taken when there accidents. How can it be made user friendly and eazy to understand. Accessible to all.

Existing Solution:

There are many existing solution for it which have been created on different stacks and they are quite complex solutions which exists.

Proposed Solution:

Creating a simulation model using HTML, CSS and Vanilla JavaScript. The main ami of the solution is to keep the model as simple as possible and as much efficent as possible. Once the solution would become a proper working model the it would be migrated to React and other frameworks.

Alternative Solution:

Most of the solutions are similar to each other with varying features provided.

Testing:

The model would be tested for all the floors inputs. It would also cover the edge cases such as What action to be taken when a user give multiple inputs. What to be done when emergency button is clicked. Would it be accessible to all including physically challenged people. Should it allow a kid under 5 years or not and many more test cases it would cover.