

Implement a simulator that simulates a single elevator that operates in a n-floor building.

- An elevator class
 - Able to handle requests from multiple floors
 - Able to fulfill requests “optimally” (Describe your metrics in the submitted code)
 - Safety features
 - Maximum capacity
 - Maximum speed
 - Emergency stop
- A customer class
 - Able to request the elevator from floors
 - Able to send the elevator
- A simulator class
 - Able to simulate up to 50 customers
 - Can generate a detailed log of the elevator operation
 - List of requests (with time) made
 - List of action (with time) the elevator took
- Test cases
 - Test capability of fulfilling customer requests
 - Test safety