Software Verification and Validation (CPSC 8370)

Project Milestone 1: Requirements for Multi Elevator system.

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General Requirements for system:

- 1. **Latency**: Elevator controller should receive request signals from buttons within certain time limit. And Each component of multi elevator system should send and receive signals in certain time limit.
- 2. **Maintainability:** Multi elevator system and it's all component should be easily maintain.
- 3. **Fault tolerance**: Multi elevator system and it's components should tolerate faults at certain extent.
- 4. **Reliability:** Multi elevator system must reliable and perform well and give expected outcome in all situations and conditions of it's operations.
- **5. Accessibility:** All functions and data should be accessible to the authority.
- **6. Extensibility:** The new functionality and components should be easily added to multi elevator system.
- **7. Operability**: Elevator should stop at requested floor and elevator near to floor the request come from should stop at that floor if current capacity of elevator is less than actual capacity.
- 8. Elevator door should open when it stops at floor and doors should close when elevator ready to depart from that floor.
- 9. Power system of multi elevator system should provide power to elevators and all components of system in all conditions.
- 10. The power system should send warning signal to multi-elevator main controller if power is getting cut soon.
- 11. Elevator should send warning signal to coordinator if it's stop functioning or any fault occurs in it's functionality.