

Building Design

- 1) How are you storing your elevators in your Building model.

Elevators are stored in an array or collection in the Building class **Elevator[] elevators**, where each element in the array is an individual elevator object.

- 2) How are you storing the incoming requests so you can distribute them to the elevators.

Incoming requests can be stored by calling **addRequest(Request request): boolean**. This queue holds instances of Request objects representing requests from users for elevator service.

- 3) How are you distributing your downRequests and your upRequests to the elevators?

When requests are received, **determineRequestDirection(Request request): Direction** will be called to find out the direction of the request, then **findElevatorForRequest(Direction requestDirection): Elevator** will be called to distribute individual requests to available elevators.

- 4) How are you removing all requests when a takeOutOfService request is received.

When takeOutOfService request is received, **clearRequest()** will be called to clear any pending requests.

- 5) How does your step method handle updating the elevators?

The **step()** method in the Building class will call the **step()** method in the Elevator class that handles updating the elevator's state and behavior over time, including tasks such as checking for pending requests, moving towards requested floors, updating door state, and advancing timers.

- 6) How do you start processing requests?

startElevatorSystem(): Boolean is needed to be called in the Building class to process requests.

7) How do you take the building out of service?

stopElevatorSystem() in the Building class is needed to be called to take the building out of service. The building will no longer be accepting requests and stops the operations of all elevators.

8) How do you take the elevators out of service?

takeOutOfService() method is needed to be called on each elevator instance to take it out of service. Any pending requests associated with the elevator can be removed.