

Design:

- Current floor of the elevator initially sets to be the minimum floor assigned.
- The elevatorController can accept multiple up requests and down requests at the same time.
- The elevatorController decides the elevator's direction based on the first request it receives.
- Initially, if the elevator's direction is up, the elevator will first go to the lowest up-request floor, then slowly go up to each up-request floor.
- Similarly, if the elevator's direction is down initially, the elevator will first go to the highest down-request floor, then slowly go down to each down-request floor.
- It takes the elevator 1 sec to go (up/down) to each floor.
- The elevatorController is able to record (print out) who is getting on/off the elevator.
- All invalid requests (such as the invalid floor, and wrong direction) will be ignored.
- The elevatorController controls 1 door and 1 elevator.

ElevatorController's Methods (excepts getters and setters)

Return Type	Method	Description
Void	sendUpRequest(Person person)	Sends up request to the elevator.
Void	sendDownRequest(Person person)	Sends down request to the elevator.
Boolean	isValidFloor(int floor)	Checks if the requested floor is within [minFloor, maxFloor].
Void	operate()	Runs the elevator after processing all the requests.
Void	printRequest(int floor)	Prints each request at a given floor.
Void	printPersonList(List<Person> dropOffPersonList, List<Person> pickUpPersonList)	Prints a list of persons getting dropped off and picked up.
Void	setCurFloorOfPersonList(List<Person> personList, int floor)	Sets the curFloor attribute for each person in the list.