## -currentFloor:int UserInterface -state:Movement +ElevatorButton() +Elevator(elevatorIDNumber:int) +pushElevatorButton( destinationFloorNumber:int ) +main(String[] args) +loadElevator():boolean +getFloor():int +UserInterfacer(floorSubsys, ElevatorSubsys?, Scheduler?) +move():void +startElevatorProgram() //Command receiver loop. Allow +moveUp():void setting of initialization file? +moveDown():void -addFloorRequest(departureFloorNumber, isUpwards, +getState():Movement destinationFloorNumber) ElevatorLamp +void():park -terminateProgram() -status:Lamp ElevatorSubsystem +ElevatorLamp() +setElevatorLamp( ENUM[up,down,off] ) TimeManagementSystem -name:string +getElevatorLamp(Lamp) -elevator:Elevator +timeMultiplier: float -scheduler:Scheduler +TimeManagementSystem(in multiplier: float) +ElevatorSubsystem(Scheduler) +getElevatorLoadingTime():float +log(String):void +getElevatorTransitTime(in currentFloor: int, in +checkFloor(int):void destinationFloor: int):ArrayList<float> +run():void ElevatorDoor -tms:TimeManagementSystem FloorSubsystem +ElevatorDoor(TimeManagementSystem) - scheduler:Scheduler +loadElevator():void - requests:ArrayList<Input> - schedulerRequests:ArrayList<Input> - elevatorPosition:Integer; - elevatorStatus:Movement; +FloorSubsystem( scheduler:Scheduler) + addInputRequests(String path) +addScheduleRequests(Input request) +getRequets(): ArrayList<Input> +getScheduleRequests(): AarrayList<Input? +updateElevatorPosition(Integer flooebno, Movement elevatorStatus) +getElevationPosition(): Integer Input +getElevatorStatus(): Movement -time: LocalTime -startfloor: int Scheduler -Upwards: boolean - TreeSet<Integer> upwardsToVisitSet; -destinationfloor: int -TreeSet<Integer> downwardsToVisitSet; -LinkedList<Integer[]> unscheduledRequests; +Input(time: LocalTimeint startfloor, Upwards,: boolean int destinationfloor:int) -boolean skipDelaysOnFloorInputs; +getTime(): LocalTime -int highestFloorNumber; +getStartFloor(): int -int elevatorCurrentFloor; +isUpwars() : boolean -FloorSubsystem floorSubsys; +getDestination: int +Scheduler(int highestFloorNumber, boolean skipDelaysOnFloorInputs) +setFloorSubsys(FloorSubsystem floorSubsys) +floorSystemScheduleRequest(Input floorSystemRequest) -getMillisecondDelayUntilRequest(LocalTime executionTime): long +addElevatorRequest(Integer startFloor, Integer destinationFloor) -attemptToScheduleUnscheduledRequests() +getNextFloorsToVisit(Integer currentFloorNumber, boolean currentElevatorDirection): SortedSet<Integer> TextFileReader -getStopsGoingUpwards(Integer currentFloorNumber): SortedSet<Integer> -getRemainingStopsGoingDownward(Integer currentFloorNumber) : SortedSet<Integer> +getrequests(): ArraayList<Input>

Elevator

-door:ElevatorDoor

ElevatorButton

-status:boolean