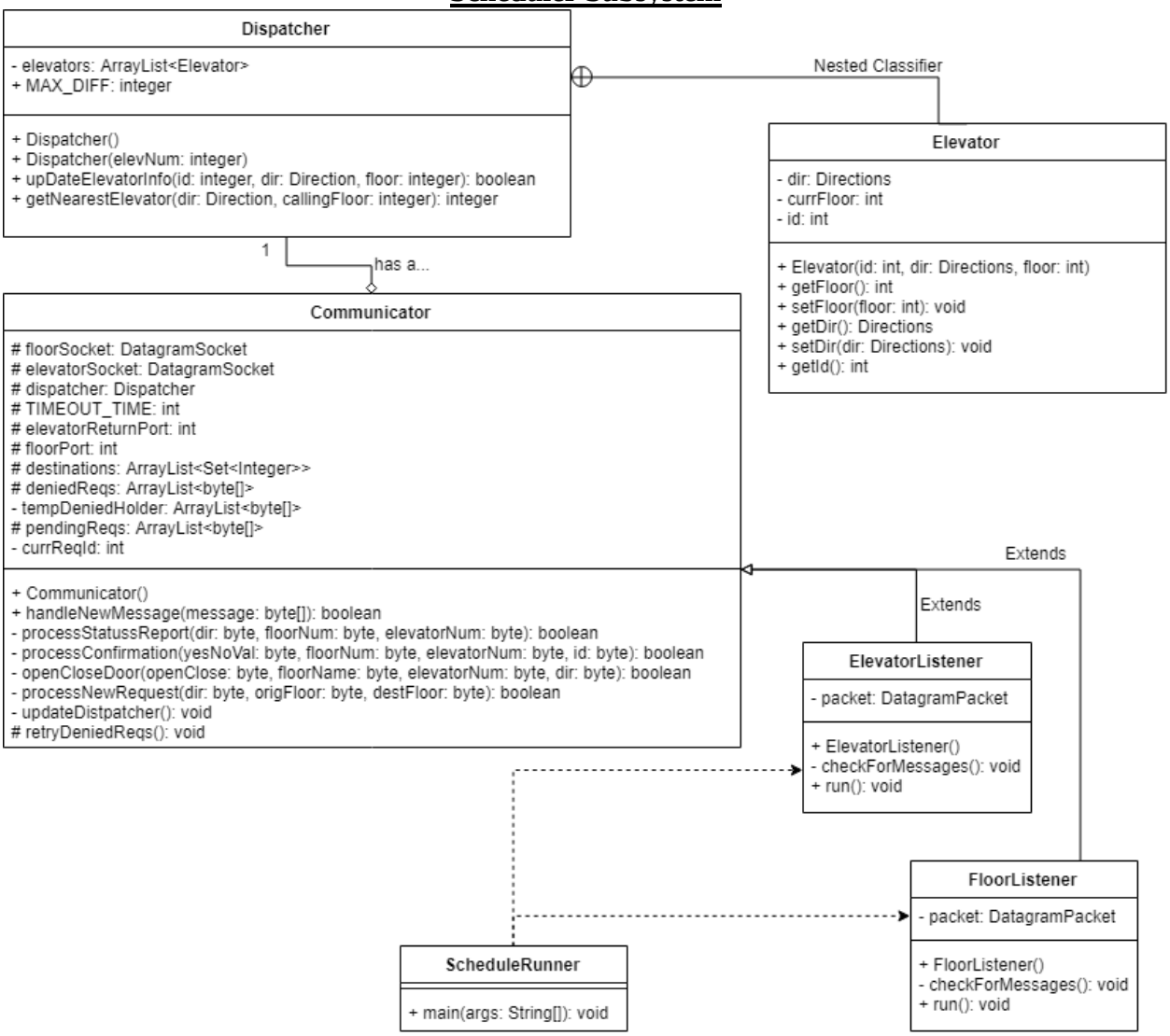
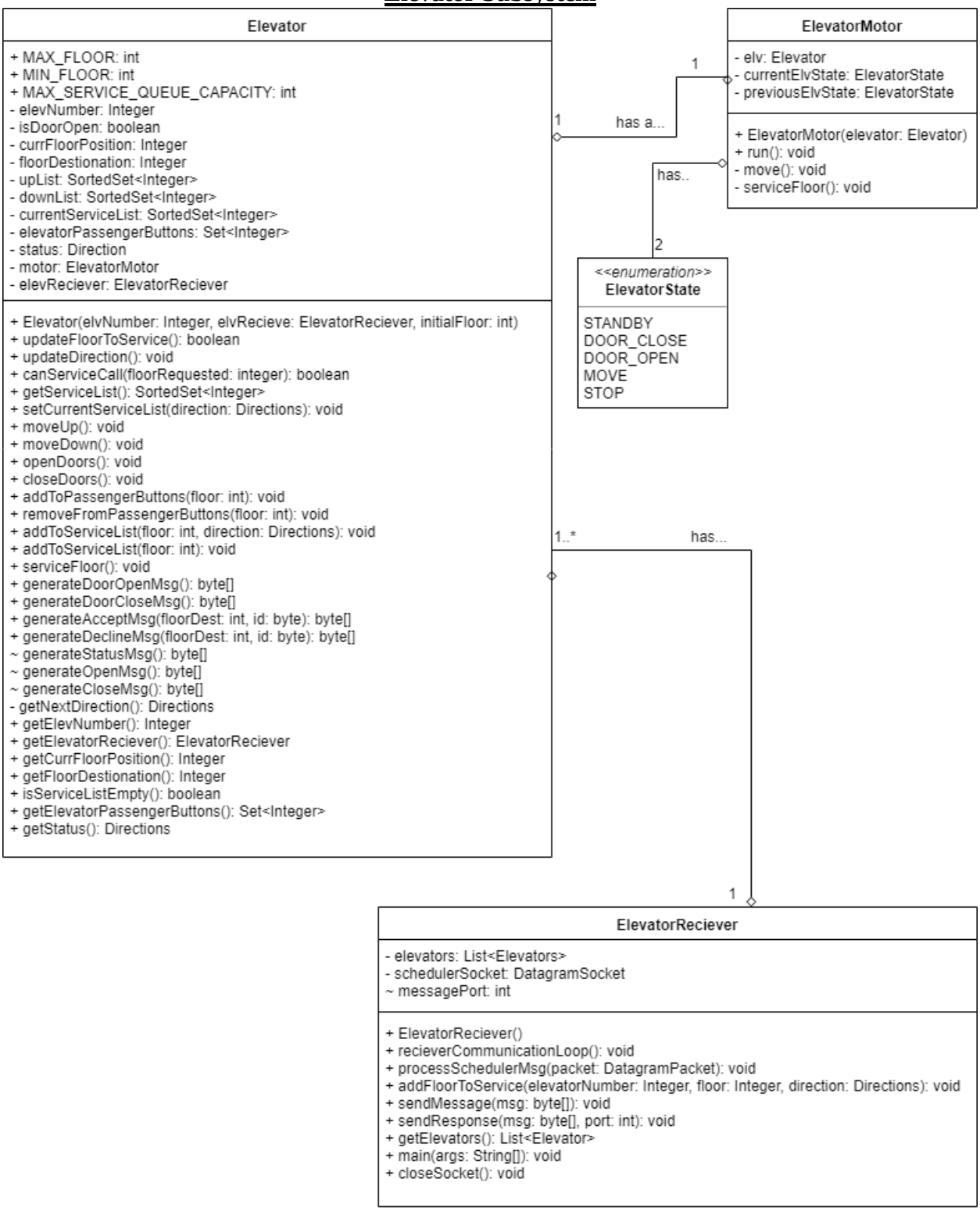
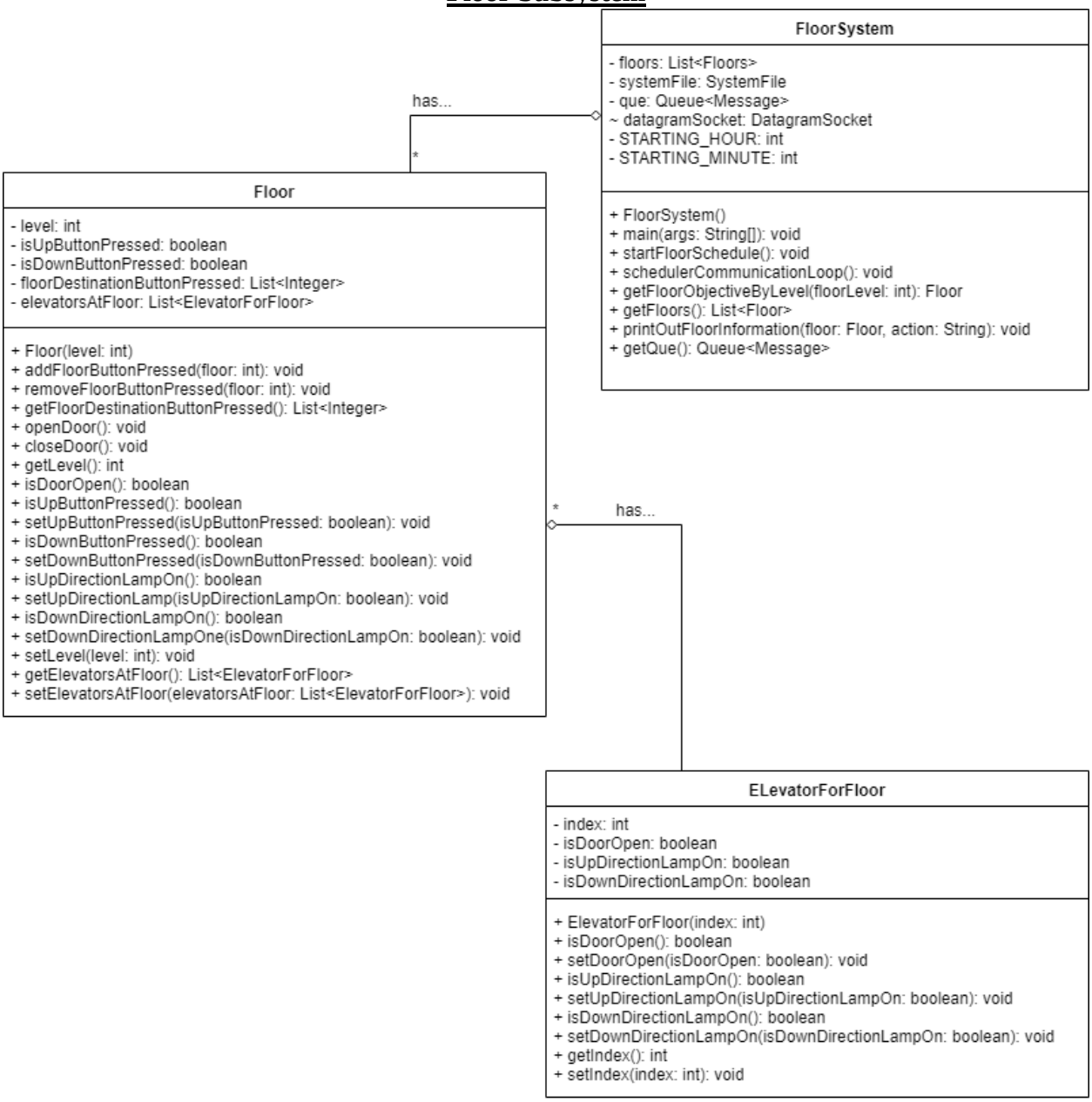
Scheduler Subsystem



Elevator Subsystem



Floor Subsystem



Resources

Constants

+ ELEVATOR_PORT: int
+ FLOOR_PORT: int
+ MESSAGE_LENGTH: int
+ NUMBER_OF_ELEVATORS: int
+ LOWEST_FLOOR: int
+ HIGHEST_FLOOR: int
+ NUMBER_OF_FLOORS: int
+ ELEVATOR_TRAVEL_SPEED_MS: int
+ ELEVATOR_STOP_TIME: int
+ SCHED_IP_ADDRESS: String
+ FLOOR_SYS_IP_ADDRESS: String
+ ELEVATOR_SYS_IP_ADDRESS: String
+ FORMATTER: SimpleDateFormat
+ ERROR: byte
+ NEW_REQUEST_FROM_FLOOR: byte
+ REQUEST_RECEIVED: byte
+ OPEN_CLOSE_DOOR: byte
+ NEW_ELEVATOR_DESTINATION: byte
+ ELEVATOR_INFO_REQUEST: byte
+ CONFIRM_VOL_DESTINATION: byte
+ STATUS_REPORT: byte
+ YES: byte
+ NO: byte
+ OPEN: byte
+ CLOSE: byte
+ MANDATORY: byte
+ VOLUNTARY: byte

- Constants()

<<enumeration>>
Directions

UP
DOWN
STANDBY

+ isOpposite(dir1: Directions, dir2: Directions): boolean
+ getDirByInt(val: int): Directions
+ getIntByDir(dir: Directions): int

Message

- time: LocalTime
- startingFloor: int
- direction: Directions
- destinationFloor: int
- messageQueue: Queue<Message>
- ELEMENTS_IN_MESSAGE: int

+ Message(time: LocalTime, startingFloor: int, direction: Direction, destinationFloor: int)
+ getTime(): LocalTime
+ getStartingFloor(): int
+ getDirection(): Directions
+ getDestinationFloor(): int
+ getMessageQueue(): Queue<Message>
+ toString(): String

SystemFile

+ FILEPATH: String
+ FILENAME1: String
- filename: String

+ SystemFile(filename: String)
- validateFloorRange(floor: int): boolean
+ readValidateAndCreatMessages(): void
- validateLine(lineInfo: String): boolean
- readFile(): ArrayList<String>
+ testReadFile(): ArrayList<String>
+ testValidateLine(lineInfo: String): boolean