SYSC 3303A2 - Iteration 3

Group: 3

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Files:

+ Buffer.java

-> Stores requests from RequestInfo into a queue fro scheduling purposes

+ RequestInfo.java

-> Used by all class to represent the input information between classes

+ ElevatorSubsystem.java

->Receives input information from SchedulerElev and notifies the elevator is ready

->Sends the information back to SchedulerElev

->Includes a elevator state machine implementation

+ ElevatorFloors.java

->Creates an ArrayList of floors for the ElevatorSubsystem to use

+ Scheduler.java

->Passes information received from SchedulerFloor to SchedulerElev and vice versa

->Uses the Buffer to send the incoming requests to the SchedulerElev

->Includes a scheduler state machine implementation

+ SchedulerElev.java

->Passes information received from ElevatorSubsystem to the main Scheduler

+ SchedulerFloor.java

->Passes information received from FloorSubsystem to the main Scheduler

->Passes the requests into the Buffer to add to the queue

+ FloorSubsystem.java

->Reads information from text file and puts it into an instance of RequestInfo class

->Passes the instance to SchedulerFloor using instance of Scheduler

+ SchTest.java

->Creates threads for floor, elevator, and the schedulers and starts them

->Creates instances of scheduler and 4 SchedulerElev

+ JUnit\_Test.java

->Tests the methods of the classes with different inputs

->Tests the states of the elevator and the scheduler

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Instruction Set-up:

1) Run

2) Check console for logs

3) Run JUnit.java

4) Check console for test logs

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Reflection:

For the Previous Iteration, we had a single scheduler that was sending requests between

the FloorSubsystem and the ElevatorSubsystem and vice versa. Now we have split up the

Scheduler into 3 threads, one that communicates between the elevator and the SchedulerElev,

one between the floor and the SchedulerFloor, and the main one that shcedules the elevators.

We have also included a Buffer class that is shared by the main Scheduler and the ShedulerFloor,

that puts the requests into a queue and the main sends it through the SchedulerElev and to the

ElevatorSubsystem.

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Breakdown of Responsibilities:

UML class diagram: Ross Matthew, Marko Simic

Elevator Subsystem: Archit Bhatia, Ross Matthew

README.txt: Michael Slokar

Buffer.java: Marko Simic

RequestInfo.java: Ross Matthew

ElevatorSubsystem.java: Archit Bhatia

FloorSubsystem.java: Mahmoud Al Sous

Schedular.java: Mahmoud Al Sous, Marko Simic

SchedularElev.java: Marko Simic, Ross Matthew

SchedularFloor.java: Marko Simic

SchTest.java: Marko Simic

JUnit\_Test.java: Marko Simic