Data Structures (2028C)

Sara Marijolovic  
Devin Harris

Homework 3 – Elevator Simulation Report

Classes needed:   
**Building:**

**Elevator:**

**Floor:**

**Door:**

**Clock:**Just a pulse that prompts the scheduler to make a new person, and the elevator to move a floor or to pick up new people

**Person:**Push buttons at a floor to summon elevator car to go up or down. Once in the car, persons press car panel button for the destination floor. All persons waiting at each floor should be kept in a queue, and once they board the car this list should be rearranged into a priority queue

Person will have a starting floor, desired floor, and arrival time. Floor integers will be defined by the scheduler and the arrival time will be defined based on the current clock cycle.

**Button:**

**Scheduler:**  
randomly creates persons who arrive at each floor at a given arrival time and with an intended destination floor