Critical Areas:

* Front Panel: Ancel Carson
* Results Panel: Robert Zebe
* Timed Simulation: Ancel Carson
* Instant Simulation: Robert Zebe

Front Panel:

* Test when delay values are input minimum on the right and maximum on the left
* Test when delay values are input minimum on the left and maximum on the right
* Test when both average delay fields are 0
* Test when delay fields are 5 and 15
* Test when delay fields are 0 and 100
* Test when a delay value is negative
* Individually test when each percent value is set to 100
* Test when percent values do not equal 100
* Test when a percent value is negative
* Test all room numbers
* Test when all room time values are set to 0
* Test when all room time values are set to 100
* Test when room time value is a negative
* Test when shift length is 0
* Test when shift length is 100
* Test when shift length is negative
* Test that buttons work

Results Panel:

* Test that multiple panels can exist at the same time
* Test that panels have correct identification number
* Test that values displayed are accurate to the simulation

Timed Simulation:

* Test that all panels change with flow of patients
* Test that data displayed is accurate to data collected
* Test that length of the shift is close to the amount of time it says it will take
* Test that final data is correctly sent to the results panel
* Test that priority is handled properly

Instant Simulation:

* Test that final data is correctly sent to the results panel
* Test that priority is handled properly

Test Cases:

* Default:
  + Arrival Times:
    - 0, 15
  + Percent Chances:
    - 20, 30, 40, 10
  + Number of Rooms:
    - 6
  + Average Room Times:
    - 30, 45, 60, 20
  + Shift Length:
    - 10
* Test 1:
  + Arrival Times:
    - 5, 15
  + Percent Chances:
    - 100, 0, 0, 0
  + Number of Rooms:
    - 6
  + Average Room Times:
    - 30, 45, 60, 20
  + Shift Length:
    - 10
* Test 2:
  + Arrival Times:
    - 15, 5
  + Percent Chances:
    - 20, 30, 40, 10
  + Number of Rooms:
    - 15
  + Average Room Times:
    - 100, 100, 100, 100
  + Shift Length:
    - .5
* Test 3:
  + Arrival Times:
    - 5, 15
  + Percent Chances:
    - 20, 0, 40, 10
  + Number of Rooms:
    - 1
  + Average Room Times:
    - -30, 45, 60, 20
  + Shift Length:
    - .5
* Test 4:
  + Arrival Times:
    - 0, 0
  + Percent Chances:
    - -20, 30, 40, 10
  + Number of Rooms:
    - 1
  + Average Room Times:
    - 30, 45, 60, 20
  + Shift Length:
    - 5
* Test 5:
  + Arrival Times:
    - -5, 15
  + Percent Chances:
    - 20, 30, 40, 10
  + Number of Rooms:
    - 1
  + Average Room Times:
    - 0, 0, 0, 0
  + Shift Length:
    - 100