P3x: Changing Priorities (EC)

(Missing) 0/0 Points

11/14/2023

Offline Score:
0/0

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Anonymous Grading: **no**

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Week 7: Overloaded Operators & Hashes

(https://seattleu.instructure.com/courses/1610311/pages/week-7-synopsis)

ICE11: Overloaded operators
(https://seattleu.instructure.com/courses/1610311/assignments/7157046)   **P3: Highest**
Priority (https://seattleu.instructure.com/courses/1610311/assignments/7157076) ⟫⟫ **P3x:**
Changing Priorities (EC)

P3x: Changing Priorities (Extra Credit)

All Projects (P)

> ⓘ   Extra Credit assignments will not be graded unless you
>   receive at least an 85% on the regular assignment.

Instructions:

Let's make the triage program a bit more useful by adding some new commands features.

change command

While sitting in the waiting room, some patients may start feeling better or get worse. Add a command to allow the nurse to change patient's priority.

The `change` command should have 2 operands:

- `<arrivalID>` represents the patient's arrival number that is listed when you execute the `list` command
- `<newPriority>` is the priority keyword that is in the table of the **P3: Highest Priority (https://seattleu.instructure.com/courses/1610311/assignments/7157076)** assignment.

Keep in mind that changing the Patient's priority should not change the arrivalOrder assigned to them when they walked through the door. Note that you are not allowed to change the `Patient.h` class. It must remain as given. Not allowing the values to be changed is a design technique

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(https://seattleu.instructure.com/courses/1610311/modules/items/17917035)   **(https://seattleu.instru**

Make sure that any user input errors are handled gracefully.

Sample output:

```
triage> add urgent Wilford Hatheway
Added patient "Wilford Hatheway" to the priority system

triage> add immediate Brenton Jamison
Added patient "Brenton Jamison" to the priority system

triage> add minimal Rodger Ness
Added patient "Rodger Ness" to the priority system

triage> list
# patients waiting: 3

  Arrival #     Priority Code    Patient Name
+-----------+---------------+--------------+
     2          immediate        Brenton Jamison
     1          urgent           Wilford Hatheway
     3          minimal          Rodger Ness

triage> change
Error: No patient id provided

triage> change 3
Error: No priority code given.

triage> change 3 blah
Error: invalid priority level code

triage> change 33 minimal
Error: no patient with the given id was found

triage> change 1 immediate
Changed patient "Wilford Hatheway"'s priority to immediate

triage> list
# patients waiting: 3

  Arrival #     Priority Code    Patient Name
+-----------+---------------+--------------+
     1          immediate        Wilford Hatheway
     2          immediate        Brenton Jamison
     3          minimal          Rodger Ness

triage> change 1 urgent
Changed patient "Wilford Hatheway"'s priority to urgent

triage> list
# patients waiting: 3

  Arrival #     Priority Code    Patient Name
+-----------+---------------+--------------+
     2          immediate        Brenton Jamison
     1          urgent           Wilford Hatheway
     3          minimal          Rodger Ness

triage>
```

save command

Sometimes the computer needs to be restarted, which causes the list of patients to be erased. Add
~~a command to allow the nurse to save the patient list to be reloaded later.~~

matters. If you need to do any sorting of values in your implementation, you are allowed to use the built-in C++ library methods.

Make sure that any user input errors are handled gracefully.

Sample output when saving:

```
triage> save patients.txt
Saved 3 patients to file patients.txt

triage>
```

Sample output when restarting the program and loading:

```
triage> load patients.txt

triage> add urgent Wilford Hatheway
Added patient "Wilford Hatheway" to the priority system

triage> add immediate Brenton Jamison
Added patient "Brenton Jamison" to the priority system

triage> add minimal Rodger Ness
Added patient "Rodger Ness" to the priority system

triage> list
# patients waiting: 3

  Arrival #   Priority Code   Patient Name
+-----------+---------------+--------------+
     2          immediate       Brenton Jamison
     1          urgent          Wilford Hatheway
     3          minimal         Rodger Ness

triage>
```

Remember to update the help command output.

Submission:

You must name your files **Patient.h**, **PatientPriorityQueuex.h**, and **p3x.cpp** (reminder Patient.h cannot be changed from the file given in the P3 starter code).

To submit, type the following command at the prompt in the directory where the P3x files reside:

```
    /home/fac/mthayer/submit/23fq5005/script/p3x_runme
```

You have read/write permissions on your submission directory at:

```
    /home/fac/mthayer/submit/23fq5005/p3/yourusername
```