OOP Lab Assignment 8

Interfaces

Date: 20-10-2021

1. Class Employee
   - Fields: name, id, Salary
2. Interface Queue
   - Should specify the methods:
   a. enqueue
   b. dequeue
3. Class ArrayQueue (to store Employee objects)
   - Should implement Queue interface
   - Use an array to implement queue. (circular array can be used for this which is optional)
   - The size of the array can be specified during queue creation
   - Methods:
     - getQueueSize - return size of the current queue
     - findById - search for an employee element by its id and return position
     - emptyQueue - delete all elements from the queue
4. Class QueueTest - driver class with the main method
   - Create and insert employee objects in the ArrayQueue
   - When the queue becomes 75% full, create a new queue of double the size and copy the older queue contents
     - to demonstrate this, create a queue with an initial size of 5 and then increase the size to 10 in your program
   - Use the Sort method provided by the java.util.Arrays to sort and print the employees based on their id.

Note:

Use getter/setter or additional methods as necessary
Don't take input from users. Give all the inputs in your code

Turn in the following:
1. java file with the name **S2020xxxxroll_QueueTest.java**
2. One or two PNG/JPG file(s) of the output