Assignment2

Task-2: Coffee Order – A café

In this task, I use a queue structure to make a queue as a terminal of the Café, in a Café it can have n terminals (for Task2. (a). i, you can input terminal number), and each terminal has 3-13 customers (a random size of queue). When you use timePass() function a new Customers object will be generated and automatically join the one of the not full terminal(for Task2. (b). i) , system will also display which terminal it go in to, and the enter time and customer ID. If it is full, it will display queue full. When Each time a use timePass() function, have a random chances have a customer go out of the queue(Task2 . (c) .i), system will display his ID and his enqueue time, it all terminal is empty, then will not have custom dequeue

**How to use:**

1. Input it to the IDE (I use Eclipse to make it)
2. Run Runable.java
3. Input a number to set up how many terminals you have in the café
   1. If input is not a number, display error program stop
4. System display terminal maximum size
5. Enter p to pass time
6. timePass() function will be call
   1. if there is empty terminals, customer auto go in a not full terminals
      1. display customer id and enter time
   2. if there is terminals not empty, it is a chance a customer will left terminals
      1. if a customer left, display id and enter time
      2. if no customer left, display no customer left
7. push any key to quit
8. display the terminals when you quit the program

**Example output 1 (correctly):**

How many terminals in your cafe?

3

Cafe created!

Terminal 0 maximum size is: 12

Terminal 1 maximum size is: 6

Terminal 2 maximum size is: 8

Please enter [P] to pass time, any other key to leave

p

Terminal [0]: Customer ID: 7726 Enter the queue at: 2018/05/07 17:03:53

p

Terminal [1]: Customer ID: 3909 Enter the queue at: 2018/05/07 17:03:53

At terminal 0 Customer ID: 7726 Enter the queue at: 2018/05/07 17:03:53 has left the terminal!

p

Terminal [2]: Customer ID: 6664 Enter the queue at: 2018/05/07 17:03:53

At terminal 2 Customer ID: 6664 Enter the queue at: 2018/05/07 17:03:53 has left the terminal!

p

Terminal [0]: Customer ID: 5476 Enter the queue at: 2018/05/07 17:03:54

No customer left

p

Terminal [0]: Customer ID: 7645 Enter the queue at: 2018/05/07 17:03:54

No customer left

p

Terminal [0]: Customer ID: 7101 Enter the queue at: 2018/05/07 17:03:55

At terminal 0 Customer ID: 5476 Enter the queue at: 2018/05/07 17:03:54 has left the terminal!

o

At this time:

Terminal 0 has customer:

Customer ID: 7645 Enter the queue at: 2018/05/07 17:03:54

Customer ID: 7101 Enter the queue at: 2018/05/07 17:03:55

Terminal 1 has customer:

Customer ID: 3909 Enter the queue at: 2018/05/07 17:03:53

Terminal 2 is empty

**Example output 2 (number input error):**

How many terminals in your cafe?

a

it is not a number, error found, program stop!