

CSE212: SOFTWARE DEVELOPMENT METHODOLOGIES

YEDITEPE UNIVERSITY

SPRING 2023

ASSIGNMENT 11 – DUE DATE JUNE 1ST, 2023

Below, you can find the description of your eleventh assignment, which also includes its output through a series of GUI screenshots.

In this assignment, you are expected to improve your existing Hotel Reservation System by incorporating multithreading to search among existing Reservations by *hotelName*.

In order to perform multithreaded search, you need to create at least 8 reservations first (see Fig 1). Furthermore, also please notice that a new button has been introduced to the frame called *Multithread Search*.

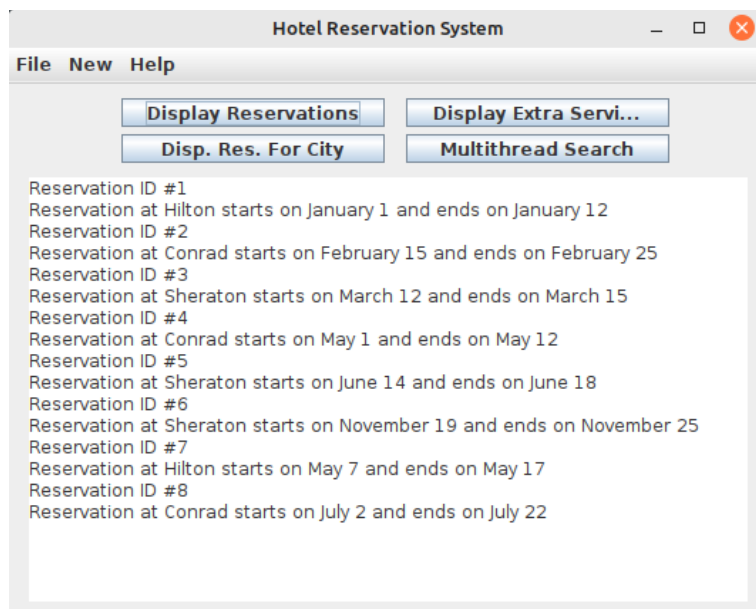


Fig 1. System GUI after 8 new Reservations are created and displayed

As stated above, in order to be able run a multithreaded search the system requires having at least 8 Reservations. Therefore, the system should check the number of reservations made so far before executing a multithreaded search. If the prerequisite is not satisfied then it should prompt the user to create

enough Reservations (see Fig 2). Please note if the *Multithread Search* button is clicked, it should first check the total number of reservations so far before starting the multithreaded search process.

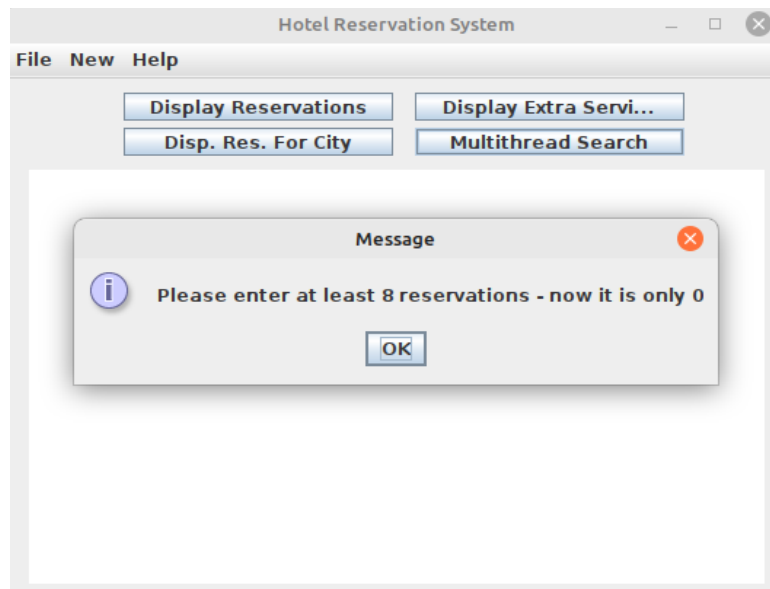


Fig 2. System prompts the user to create at least 8 reservations.

After the required number of Reservations is created and the *Multithread Search* button is clicked on; a JOptionPane should pop up and ask the user to insert a hotel name (see Fig 3) to conduct a search on.

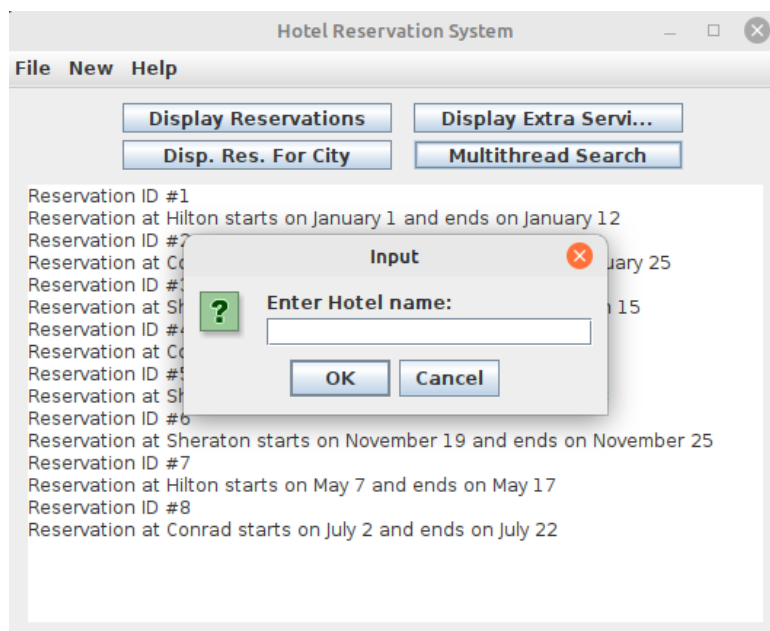
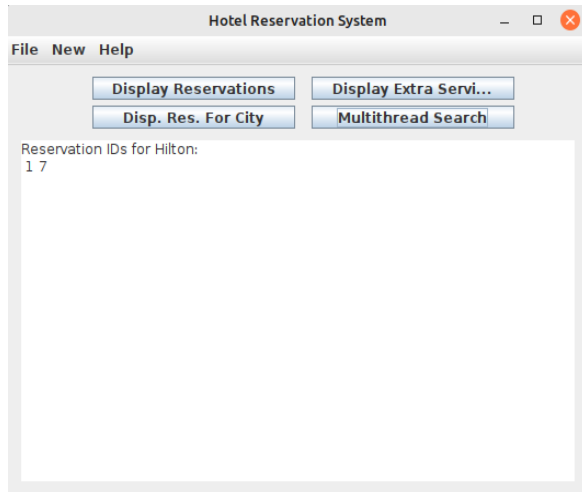
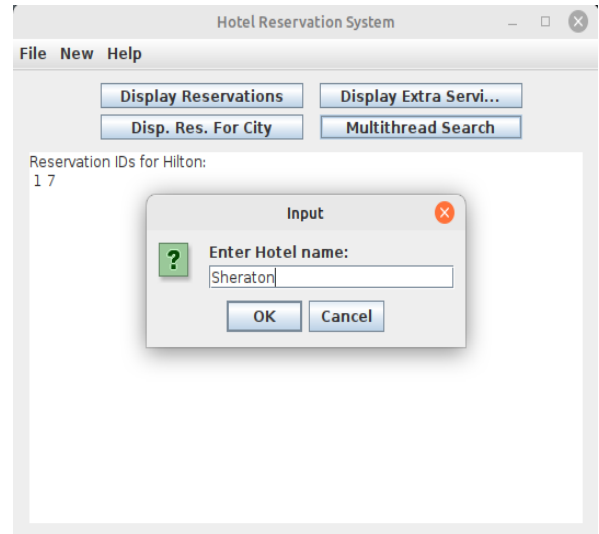


Fig 3. Pop up asks for a hotel name to conduct *Multithread Search*

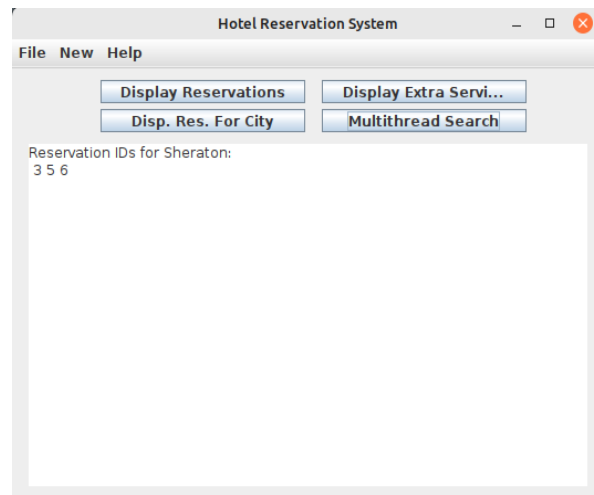
If the user enters a hotel name that exists within the Reservations, the Reservation IDs for the hotels with given name should be returned (see Fig 4a). For example, in Figure 4b a multithreaded search for all hotels named “Sheraton” is requested and the search conducted on the reservation data set provide in Figure 1 resulted with the IDs shown in Figure 4c.



(a)



(b)



(c)

Fig 4. Multithread Search

Submit your assignments in a zip file, which has your student number as name, through the YULEARN (<https://yulearn.yeditepe.edu.tr>) latest by the end of Thursday, June 1st, 2023.