



HUCS CINEMA RESERVATION SYSTEM GUI APPLICATION

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PROBLEM-WHAT IS HUCS CINEMA RESERVATION SYSTEM

This system is created for users to buy cinema ticket for films that on the system and check their ticket ,check halls of desired film,watching the trailer of film etc.And also this system has different types of users and their access of this system is different from each other .For example if the user is an admin he/she has right to take any action beside of basic operations for regular users,Such as buying ticket for other users and refund it ,adding movies,removing movies,halls,demoting/promoting user etc.If the user is a club member he/she has discount for buying tickets.But if user is a regular user which means not an admin and club member he/she has only rights to operate basic action (which means he/she cannot access the other users ticket and cannot refund it ,only he/she can buy ticket,watch trailer etc.)

SOLUTION

To create and implement this system Java and Javafx is used.The program includes 17 classes(one of them is Main class and one of them is Custom Exception class).

In general every window that users desire to see has their own class which extends Stage and when the user wants to go that stage , primary stage's scene will change according to desired stage's scene.To do this getter and setter methods for primary stage is created and primary stage is accessible from the outside of the class.

A Database class is created to update the backup.dat and check current data to make operations on the other classes.

To give error sounds and messages an ErrorException class is created.

THE PROBLEMS FACED WHILE IMPLEMENTING THE SYSTEM AND SOLUTIONS

Initially primary stage is not accessible from the outside of the start method and this will make the main class more complicate because it had every window's event handler and changing the scene operation but this made main class so much long,to prevent this getter and setter methods for primary stage is created with the help of this methods Primary stage is accessible outside of the class and its' scene can change according the action.

The data had not been access after every operation but making a updateData and checkData method inside Database class and calling this method after every scene change solved this problem.

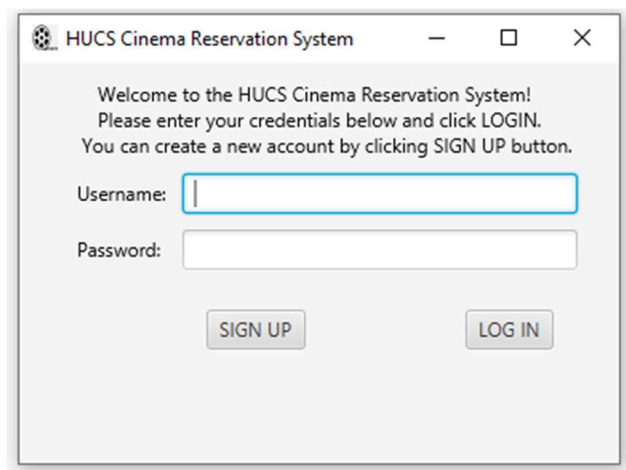
BENEFITS OF THIS SYSTEM

- Customers do not have to go cinema to buy a ticket,if they sign up this system tickets are just a click away.
- Customers access information they need easily,because every operation result and the last state of system is going to be recorded inside of a backup.dat.
- They can access this system 24/7.

BENEFITS OF GUI

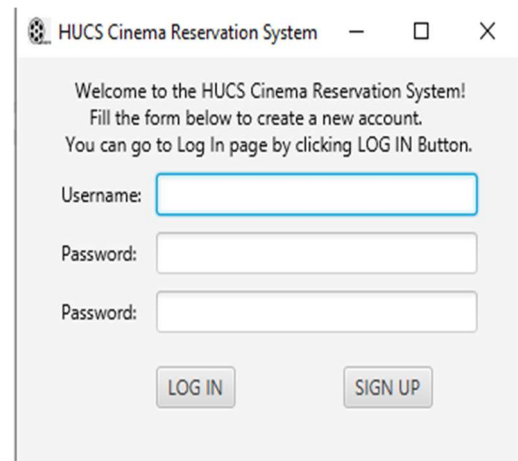
As the name suggests, the gui provides users with a graphic, visual appearance, such as buttons, videos,textfields in our program, and working in such a system allows us to conclude the simultaneous activities of the user simultaneously.

SOME PICTURES FROM THE SYSTEM



The screenshot shows a window titled "HUCC Cinema Reservation System". Inside, the text reads: "Welcome to the HUCC Cinema Reservation System! Please enter your credentials below and click LOGIN. You can create a new account by clicking SIGN UP button." There are two input fields: "Username:" and "Password:". Below the fields are two buttons: "SIGN UP" and "LOGIN".

Login Window



The screenshot shows a window titled "HUCC Cinema Reservation System". Inside, the text reads: "Welcome to the HUCC Cinema Reservation System! Fill the form below to create a new account. You can go to Log In page by clicking LOG IN Button." There are two input fields: "Username:" and "Password:". Below the fields are two buttons: "LOG IN" and "SIGN UP".

SignUp Window

RESOURCES

- JavaFx slides
- Stack Overflow
- Bbm102 lecture notes
- Java Tutorial - <https://docs.oracle.com/javase/tutorial/>