IN-COURSE ASSESSMENT NO 3

EC5080: SOFTWARE CONSTRUCTION

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JUSTIFICATIONS

After working with some Java IDE's, I have chosen NetBeans IDE to build this application. Other IDE's such as IntelliJ, Eclipse are good for Java programming. But when considering this project (GUI Application development), previously mentioned IDEs are not looking good for me. Because the tool management and working process of them are complex and it didn't give the perfect results.

So, then I change to NetBeans IDE. It is very productive with a well-known Java framework "Swing". Swing is an extension of AWT and useful to create window-based applications. It provides platform-independent and lightweight components to easily manage the working process.

PROBLEMS AND SOLUTIONS

When I use IntelliJ and Eclipse it feels complex and hard to work with its tools. We need to work hard to do Designing things such as positioning and coloring with them. Actually, designing consumes more time with these IDEs. Programming is okay for me. But we can use many IDEs for programming. So, I tried NetBeans to solve my problems.

NetBeans's graphical user interface and toolkit are helped to do work efficiently. Designing works such as positioning is easier with a graphically advanced interface. So, we can mainly focus on the programming works rather than other things. Furthermore, it has included a pre-build structure to format our codes. So, we don't need to add event listeners and some functions manually.

Considering the above cons and pros of three different IDE's, I have chosen NetBeans and Swing as my IDE and framework for this Software construction project.

HOW IT WORKS

At the start of the application, all the 84 buttons named with numbers (1 to 10 horizontally) are in gray. It means any seat can reserve. At the left side of mentioned buttons, a particular numbering column can be seen (1 to 10 vertically). That is to represent row numbers. If anyone needs to reserve one or more seats, he or she needs to click the gray-colored buttons. Then selected buttons turn into green color and some changes will happen on the screen. They are,

- Tickets field updates the total tickets he selects.
- Total field updates the total cost for selected seats.
- Seats field updates the seat names (using row and column number) the user selected.

If the user wants to deselect a seat it can be done by clicking the selected button again. Then that button turns onto the initial gray color. After choosing the required seats user can book them by clicking the Book Now button.

When the Book Now button is clicked, selected buttons turn red color and they are reserved. Can't book again. And also, above mentioned 3 fields (Tickets, Total, Seats) reset to the initial state.

Likewise before, the user can do the same process continues for the remaining seats (gray colored seats) until all the seats become red color (all the seats reserved). At that moment a pop-up message will receive to inform the user that, all the seats are reserved. When the user closes that popup message Book Now button will be disabled.