**Theater Seating Program Requirements**

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**The theater's auditorium has 10 rows of seats, with 10 seats in each row.  The program should display a screen that shows which seats are available and which are taken.**

* When program starts, the first thing that should be displayed is a welcome message along with the seating chart of what seats are available and taken.
* The user should be prompted to what row(s) and seat(s) they want to purchase.
* The selections need to be validated for valid entries with nested loops.

For example:

“Choose a row: “ [11]

“Choose a seat: “ [4]

“Sorry, there is not a row 11!”

“Choose a row: “

-or-

“Choose a row: “ [3]

“Choose a seat: “ [5]

“Sorry, that seat is taken!”

“Choose a row: “

* A sentinel will need to be incorporated for the user to let the program know they are done purchasing.

**Every time a ticket or group of tickets is purchased, the program should display the total ticket prices and update the seating chart.**

* Ticket prices will need to be established for each row. For example, Row 1 = $100, Row 2 = $90, Row 3 = $80, and so on.
* The program will have to display the users total ticket price. (Loop)
* User should be prompted to finalize the sale. If user selects to purchase, then seating chart will be updated and displayed. If not, then it loops back to the beginning of the program.

**The program should keep a total of all ticket sales.**

* This requirement speaks for itself. The ticket price for each row shall be multiplied by the number of seats purchased by that particular row. Those totals for each row are added up for a grand total.

**The program should also give the user an option to see a list of how many seats have been sold, how many seats are available in each row, and how many seats are available in the entire auditorium.**

* If user chooses to see this, it can go either way. A basic list that shows sold and available seats for each row and a total of available seats at the end of the list. Or it can display the seating chart with additional columns at the end of each row to show sold and available with a total of available seats underneath the table.
* If the user opts out, then the program ends with a thank you message.

**Additional**

* All these requirements will need to be written and read from a file to save the data. This will require to include <fstream>.
* This program will include a lot of facets, such as *for, if, do while, while,* and so on. A lot of this is focused on chapter 5 in our textbooks.