Project One Pseudocode

Best Available

Parameters: auditorium_array, r= row, t = total seats to be booked

Returns: starting seat with smallest distance to the middle of the given row

- Initialize seats_selction = -1 and initialize dis =-1
- Iterate through the row to find t seats together
    - Once t seats are found, calculate the distance between the center of the row to the center of the selected seats.
    - If calculated distance is less than the parameter dis, update dis and seats_selection.
        - Keep smallest distance and starting seat number
- Return starting seat number
    - -1 if no best seats available

Display Auditorium

Parameters: auditorium

Returns: nothing

- Display column header
- For 1 to total rows
    - Read line
    - Display row number
    - Display line
        - Change non-periods to #

Reserve Seats

Parameters: auditorium, row, seat, adult quantity, senior quantity, child quantity

Returns: nothing

- For each ticket type
    - For 1 to quantity
        - Write appropriate letter to auditorium[row][seat]

Check Availability

Parameters: auditorium, row, seat, total quantity

Returns: Boolean

- For 1 to quantity

        - Read character at auditorium[row][seat]
        - If character is not a period
            - Return false
- Return true

Display Report

Parameters: auditorium

Returns: nothing

- For 1 to rows
    - For 1 to seats
        - Read character at auditorium[row]col]
        - Increment appropriate counter based on character read
        - A = adult, S = senior, C = child, period = empty
- Print report
    - Total seats
    - Total sold
    - Adult sold
    - Child sold
    - Senior sold
    - Total sales

Main

- Loop (do…while not exit)
    - Print main menu
    - Get user input
    - If user does not want to exit
        - Display auditorium
        - Ask user for row, seat and quantities (adult, child, senior)
        - Validate input for each input
            - Loop if not valid
        - Check if seats are available
            - If available reserve seats
        - If seats not available
            - Find best available seats
            - Ask user to reserve best available (if found)
            - If user accepts
                - Reserve seats
- Print report