Assignment 1A  
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Program Description:  
Write an application to pre-sell a limited number of cinema tickets. Each buyer can buy up to 4 tickets. No more than 20 tickets can be sold total. Prompt the user for the desired number of tickets and then display the number of remaining tickets after their purchase. Repeat until all tickets have been sold. Then display the total number of buyers.

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Variables:  
1. total\_tickets: Total number of tickets for sale.  
2. buyer\_count: The number of buyers who made a purchase.  
3. requested\_tickets: Number of tickets the user has purchased in a single transaction.

4. max\_tickets: Max number of tickets a buyer can purchase in one purchase

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Functions:

1.) Function Name: ticket\_sale  
Description: Manages the ticket sale process. Prompts user for input then validates the input and processes sale. The ticket count will then be updated and track the number of buyers. The function will loop until each ticket is sold. The total number of buyers will be displayed once the sale is complete.

Parameters:

Total\_tickets: the starting number of tickets that are available to buy (20 tickets)

Max\_tickets\_per\_buyer: the maximum number a single buyer can purchase in one sale (4 tickets)

Returns: Number of buyers in the sale

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Logical Steps:  
1. Initialize ticket and buyer count

2. Prompt the user for the ticket purchase  
3. Check the user input  
4. Process the ticket purchase

5.) Display the remaining amount of tickets

6.) Repeat until no tickets are left

7.) Display total number of buyers

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Link to repository: <https://github.com/JTheBlue1/COP-2373>