**Program Description:**

This program manages the pre-sale of a limited number of cinema tickets. It allows each buyer to purchase up to 4 tickets and stops once all 20 tickets are sold. The program keeps track of the number of tickets sold, remaining tickets, and total buyers.

**Functions used in the Program (list in order as they are called):**

1. **Function Name:** process\_purchase

**Description:**

Initiates one transaction by asking the buyer for the number of tickets, validates their request, updates the remaining ticket count, and the bought count if the transaction is successful.

**Parameters:**

remaining\_tickets: The remaining ticket count.

buyers: Current number of buyers.

**Variables:**

tickets\_requested: Stores the entered number of tickets for sale.

**Logical Steps:**

1. Asks for how many tickets to purchase.
2. Check to see ticket amount between 1-4.
3. Scans if amount is available.
4. If available decrease input ticket count and increase buyer count.
5. If unavailable, display error message.
6. Display updated ticket count.

**Returns:**

A tuple containing the updated values of remaining\_tickets and buyers.

2. **Function Name:** ticket\_presale

**Description:**

Manages the process by repeatedly calling process\_purchase until all tickets are sold.

**Parameters:**

None.

**Variables:**

total\_tickets: The total tickets available.

remaining\_tickets: shows remaining tickets.

buyers: Counts the buyers who purchased tickets.

**Logical Steps:**

1. Confirms the total number of tickets and buyer count.
2. Uses a loop for transactions until all tickets are gone.
3. Uses process\_purchase to handle single transactions and update the ticket and buyer count.
4. Displays a message when all tickets are sold with the total buyers.

**Returns:**

None.

**Logical Steps:**

1. The program begins with execution for ticket\_presale.
2. Within ticket\_presale initiate ticket and buyer variables.
3. Loop to process the ticket transaction by calling process\_purchase.
4. Within process\_purchase, require user for input, check it, and update the remaining amounts for tickets and buyer.
5. Repeat the loop until tickets are zero.
6. Display the amounts for variables when loop ends.

**Link:** https://github.com/Art389/COP-2373