Cinema Ticket Pre-Sale Program

Dylan Torres

Date Created: 5/25/2025

**1. Program Description**

This program simulates a cinema ticket pre-sale system with a limited inventory. A total of 20 tickets are available, and each buyer can purchase up to 4 tickets in a single transaction. The program runs interactively, prompting users to enter the number of tickets they would like to buy. It tracks ticket sales and buyer count until all tickets are sold.

**2. Functions and Their Purpose**

**get\_tickets\_request(remaining\_tickets)**

This function handles user input for ticket purchases. It checks:

* If the requested number of tickets is at least 1
* If it does not exceed the per-buyer limit (4)
* If it does not exceed the number of tickets remaining  
  If the input is valid, it returns the number requested. Otherwise, it returns 0 and displays a message explaining the issue.

**run\_ticket\_sales()**

This is the main control function that:

* Initializes ticket counters
* Repeatedly calls get\_tickets\_request() in a loop
* Updates ticket totals and buyer count after each valid transaction
* Ends when all tickets are sold and prints a final summary

**3. Logical Steps**

1. Define constants for total tickets and max tickets per buyer.
2. Start with 0 tickets sold and 0 buyers.
3. Loop while tickets are still available:
   * Prompt the user to know how many tickets they want.
   * Validate their input using get\_tickets\_request().
   * If valid, update tickets sold and buyer count.
   * Display the number of tickets remaining.
4. When tickets run out, exit the loop and print the total number of buyers.

COP2373 repository: <https://github.com/Shinymon/COP2373>

Screenshot:

A screenshot of a computer program

AI-generated content may be incorrect.A screen shot of a computer program

AI-generated content may be incorrect.