**Technical Design**

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**Program Description:**

This program prompts buyers to enter how many tickets they would like to buy. Each user can only buy up to 4 tickets, and there are only 20 tickets available. After each transaction it displays how many tickets were bought and how many are left.

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

1. **Function Name:** main()

**Description:** handles transactions, calls out the other function and stops when all 20 tickets are sold.

**Parameters:** none

**Variables:** total\_tickets(int) – number of remaining tickets starting at 20.

Buyers(int) – number of buyers.

Tickets\_requested(int) – number of tickets requested for each transaction.

**Logical Steps:**

1. Set total\_tickets to 20 and buyers to 0.
2. Use while loop that runs while total\_tickets>0.
3. Call get\_tickets function to get tickets requested.
4. If statement for tickets\_requested -= total\_tickets.
5. Display error message if there are not enough tickets.

**Returns:** 0

2. **Function Name:** get\_tickets

**Description:** Asks buyers how many tickets they would like to buy, no more

than 4 per person.

**Parameters:** 0

**Variables:** quantity(int): number of tickets entered by the user.

**Logical Steps:**

1. Use while loop to prompt users until a valid input is received.
2. Uses try and except in case of invalid input.
3. Return value if number is 1-4.
4. Error message displayed if input invalid.

**Returns:** integer between 1 and 4 representing the number of tickets requested.

**Logical Steps:**

1. Program starts by calling the main function.
2. Inside main function, get\_tickets function gets called to collect input.
3. Updates ticket count and prints the result with returned value.
4. The program keeps running until all tickets have been sold.