**Technical Design Document Template**

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**Program Description:**

This program pre-sells a limited number of cinema tickets. The program allows for 20 tickets to be bought, 4 max per buyer.

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

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

**Description:** This function calls ticket\_seller() and displays how many loops the user bought tickets in said function.

**Parameters:** none

**Variables:**

1. number\_of\_buyers(int): return value from ticket\_seller(); number of loops/buyers user used to buy tickets.

**Logical Steps:**

1. Calls ticket\_seller()
2. Assigns return value to number\_of\_buyers
3. Displays number\_of\_buyers to user

**Returns:** none

2. **Function Name:** ticket\_seller()

**Description:** This function asks the user for the amount of tickets they would like to buy until the user buys 20 total tickets, then returns how many times the user bought tickets to main().

**Parameters:** none

**Variables:**

1. number\_of\_buyers(int): keeps track of how many times user buys tickets. Is returned to main().
2. tickets\_sold(int): keeps track of how many tickets the user has bought in total.
3. number\_of\_tickets(int): tracks how many tickets the user has left to buy.
4. ticket(int): Stores number of tickets user buys per loop/buyer. Added/subtracted to tickets\_sold and number\_of\_tickets each loop, respectively.

**Logical Steps:**

1. Prompts user for number of tickets to buy
2. Reprompts user for tickets if user asks for 0 or over 4, or if user buys over 20 in total, otherwise:
3. Counts loop as a buyer, subtracts number from total tickets left
4. Displays tickets left
5. Repeats 1-4 until user buys 20 tickets
6. Returns number of loops user took to buy 20 tickets to main()

**Returns:** number\_of\_buyers(int): how many loops user took to buy 20 tickets

**Logical Steps:**

1. Call main()
2. main() calls ticket\_seller()

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**Output Screenshot: (make sure big enough so I can see)**

A computer screen shot of a computer

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