**Technical Design Document Template**

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**Program Description:**

This program cells cinema tickets and prompts the user to buy tickets. Each buyer can buy up to 4 tickets. It displays the number of remaining tickets after each purchase and continues until all tickets have been sold. It then displays the total number of buyers.

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

1. **Function Name:** sell\_tickets

**Description:** Prompts the user with the number of tickets they want to buy and checks that the purchase is valid and within the limits.

**Parameters:** available\_tickets(int)- Number of tickets remaining.

**Variables:** desired\_tickers(int)- Number of tickets the user wants to buy.

**Logical Steps:**

1. Prompt the user for input in the number of tickets to buy
2. Confirms that the number of tickets is within 1-4.
3. Lowers the count of the number of available tickets after the user confirms the amount they want to buy.

**Returns:** updates the number of available tickets after the user inputs the number tickets they want to buy.

2. **Function Name:** main function

**Description:** The main function initializes the available tickets and tracks the buyers. It then loops and calls the sell\_tickets function until all remaining tickets are sold.

**Parameters:** None

**Variables:** total\_tickets(int)- Initializes the number of tickets available to 20.

Buyers\_count(int)- Accumulator that tracks the number of buyers and is initialized to 0.

**Logical Steps:**

1. Initialize 20 total tickets and the number of buyers to 0.
2. Loops and calls the sell\_tickets function to sell tickets until there are none left.
3. Prints the total number of buyers after the tickets are sold out.

**Returns:** None

**Logical Steps:**

1. Main function initializes the number of tickets available and the buyer count, then calls the sell\_tickets function.

**Link to your repository:** https://github.com/VBBarrera/COP2373