**Technical Design Document Template**

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**Program Description:**

This program pre-sells 20 tickets. Each time tickets are bought, the user can buy 1 to 4 tickets. However, it must be exactly 20 tickets that are sold. This program effectively sells 20 tickets without running into problems.

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

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

**Description:** This is the main function that lists the initial variables and does everything outside of selling the tickets and doing the calculations to determine how many tickets are left.

**Parameters:** None

**Variables:** ticketsRemaining: This integer variable keeps track of how many tickets are remaining.

**Logical Steps:** First it creates the ticketsRemaining variable with a value of 20 for the amount of tickets remaining, then it goes through a while loop that continues calling the sell\_tickets function until all the tickets have been sold, and lastly, when all of the tickets have been sold, the program tells you that it has run successfully.

**Returns:** None

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

**Description:** The sell\_tickets function is responsible for selling the tickets.

**Parameters:** There is a positional parameter for this function called tickets. It is used to keep track of how many tickets are remaining to be sold.

**Variables:** ticketsBought: This is an integer variable that is used to store the amount of tickets that the user wants to buy in order to calculate the number of tickets remaining.

**Logical Steps:** First the function gets called with the tickets parameter passed into it, then a while true loop with a try/except statement comes next to get a number of tickets bought that is ranging from 1 to 4. If anything besides 1, 2, 3, or 4 is entered, it will ask the user to enter a number 1-4. Then, the program subtracts the ticketsBought from tickets and then returns the value to the main function.

**Returns:** tickets: After ticketsBought is subtracted from tickets, it is sent back to the main function as ticketsRemaining.

**Logical Steps:**

1. main() and the sell\_tickets() and then back to main(), repeating this process until all tickets have been sold.

**Link to your repository:** <https://github.com/Philip7454/COP2373>

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

A screenshot of a computer program

AI-generated content may be incorrect.