

# Technical Design Document: ZachariahKersey\_ProgrammingExercise\_1

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# Program Description: Handles the sale of 20 tickets

## Function: processOrder

Handles the process of selling tickets purchased.

Parameters:

None

Variables:

tickets (int): The total number of tickets available for sale

buyers (int): The number of buyers

ticketsPurchased (int): The number of tickets requested for purchase

Logic:

1. Initialize tickets for sale and number of buyers.
2. Print the number of tickets available for purchase upon first run.
3. Loop through prompting for purchasing tickets until none are left.
4. Prompt for a number of tickets to purchase.
5. Validate the request number of tickets across various criteria.
6. Update the number of tickets remaining.
7. Increase the numbers of buyers by 1.
8. Print the new number of tickets remaining.
9. Upon no tickets remaining, print the total number of buyers.

Return:

None

## Function: validatePurchase

Validates that the requested amount of tickets is valid.

Parameters:

totalTickets (str): The total number of tickets available for sale

ticketsPurchased (int): The number of tickets requested for purchase

### Variables:

totalTickets (int): The total number of tickets available for sale

### Logic:

1. Convert ticketsPurchased to an integer.
2. Check if ticketsPurchased is a positive integer.
3. Check if ticketsPurchased is below 4-ticket limit.
4. Check if there are enough tickets to sell the requested amount.
5. Return True to indicate that we can buy the tickets.

### Returns:

True or False.

#Link to your repository: <https://github.com/Z-Money?tab=repositories>

```
Tickets remaining: 20
How many tickets would you like: 5
Sorry, you cannot buy more than 4 tickets
Tickets remaining: 20

How many tickets would you like: 4
Tickets remaining: 16

How many tickets would you like: 3
Tickets remaining: 13

How many tickets would you like: 2
Tickets remaining: 11

How many tickets would you like: 1
Tickets remaining: 10

How many tickets would you like: 4
Tickets remaining: 6

How many tickets would you like: 4
Tickets remaining: 2

How many tickets would you like: 2
Tickets remaining: 0
```