Test Matrix

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| calcItemToPounds Test Matrix | | | | | | | |
|  | Test Cases | | | | | | |
| Valid | Invalid | | | Boundary | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Inputs | | | | | | | |
| numOfItems | 2 | -1 | 4 | 5 | >0 | <1 | 4 |
| item | egg | (any) | wrong | (any) | (any) | (any) | (any) |
| Outputs | | | | | | | |
| totalItemLbs | 0.44 | -1 | -1 | -1 | 0 | 0 | <5 |
| Error |  | No Items. | Wrong Item. | Max Exceeded. |  |  |  |

Task: Convert number of items to weight in pounds and return pounds.

Inputs: item, numOfItems

Outputs: totalItemLbs

Validation: item must be in list array (egg, flour, sugar, butta), number of items must be greater than 0 and less than 4, total pounds for an item must be less than 5lbs

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Test Cases | | | | | | | |
| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| numOfItems | 2 | -1 | 4 | 5 | 0.1 | 0.25 | 4 |
| Item | egg | egg | EGG | egg | egg | egg | egg |
| itemToLbs | 0.22 | 0.22 | 0 | 0 | 0 | 0 | 0.22 |
| totalItemLbs | 0.44 | -1 | -1 | -1 | 0 | 0 | 0.88 |
|  |  |  |  |  |  |  |  |

BEGIN

IF (numOfItems >0 OR numOfItems <4)THEN

RETURN -1

IF (item == list[\*] )THEN

TRUE

ELSE

RETURN -1

IF (item == egg)THEN

itemToLbs = 0.22

IF (item == flour)THEN

itemToLbs = 0.275

IF (item == sugar)THEN

itemToLbs = 0.44

IF (item == butta)THEN

itemToLbs = 0.25

totalItemLbs = numOfItems \* itemToLbs

RETURN totalItemLbs

END

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| calcWeightOfCart Test Matrix | | | | | | | |
|  | Test Cases | | | | | | |
| Valid | Invalid | | | Boundary | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Inputs | | | | | | | |
| item | egg | -1 | char |  | 0 | (any) | (any) |
| item weight total | 0.22 |  |  |  | (any) | 0 | 25lbs |
| Outputs | | | | | | | |
| Sum total weight | .22lbs | -1 | -1 | -1 | 0 | 0 | (max) |
|  |  | invalid weight | invalid item | max weight exceeded |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| calcCostOfItems Test Matrix | | | | | | | |
|  | Test Cases | | | | | | |
| Valid | Invalid | | | Boundary | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Inputs | | | | | | | |
| numOfItems | 2 | -1 | 4 | 20 | 0 | 5 | (any) |
| costConversion | egg.cost | (any) | wrong | (any) | (any) | (any) | (any) |
| Outputs | | | | | | | |
| totalCost | $0.50 | $0.00 | $0.00 | $0.00 | $0.00 | $##.00 | $25.00 |
| error |  | No Items | Wrong Item | Max Exceeded |  |  |  |

**Function Signature:** calcCostOfItems (numOfItems, costConversion): double

**Inputs:** costConversion, numOfItems

**Outputs:** totalCost

**Validation:** Number of items cannot be negative, number of items cannot be greater than 5, total cost cannot be over $25.00

**Cost Conversions Per Unit as follows:** egg $0.25 , butta $1.00, sugar $2.50, flour $5.00

BEGIN

IF (numOfItems < 0 OR numOfItems > 5)THEN

RETURN -1

totalCost = totalCost + (numOfItems \* costConversion)

IF (totalCost > 25)THEN

RETURN -1

ELSE

RETURN totalCost

END

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Cases** | | | | | | | |
| **Variables** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| numOfItems | 2 | -1 | 4 | 5 | 0.1 | 0.25 | 4 |
| Item | egg | egg | EGG | egg | egg | egg | egg |
| itemToLbs | 0.22 | 0.22 | 0 | 0 | 0 | 0 | 0.22 |
| totalItemLbs | 0.44 | -1 | -1 | -1 | 0 | 0 | 0.88 |
|  |  |  |  |  |  |  |  |