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Professor Monshi

CMSC 203

2/23/2020

**Assignment 2 Design Document**

Test Table

Test Case #1 (valid)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NAME | AGE | TOY | MESSAGE | CARD | BALLOON | COST/TOTAL |
| Jane | 3 | Blocks | "Good choice!” | No | No | $20.00 |
| Tom | 5 | Blocks | "Good choice!” | Yes | Yes | $28.95 |
|  |  |  |  |  |  | $48.95 |

|  |  |  |
| --- | --- | --- |
| EXPECTED OUTPUT | ACTUAL OUTPUT | PASS? |
| “The gift for Jane at 3 years old is a blocks for $20.00”  “The gift for Tom at 5 years old is a blocks for $28.95”  “Total Cost: $48.95  Order Number: ####  Programmer: Elizabeth” | “The gift for Jane at 3 years old is a blocks for $20.00”  “The gift for Tom at 5 years old is a blocks for $28.95”  “Total Cost: $48.95  Order Number: ####  Programmer: Elizabeth” | Yes |

Test Case #2 (valid)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NAME | AGE | TOY | MESSAGE | CARD | BALLOON | COST/TOTAL |
| Jane | 3 | Blocks | "Good choice!” | No | Yes | $26.00 |
| Tom | 5 | Book | "Good choice!” | Yes | Yes | $23.95 |
| Lucy | 2 | Plushie | "Good choice!” | Yes | No | $27.95 |
|  |  |  |  |  |  | $77.90 |

|  |  |  |
| --- | --- | --- |
| EXPECTED OUTPUT | ACTUAL OUTPUT | PASS? |
| “The gift for Jane at 3 years old is a blocks for $26.00”  “The gift for Tom at 5 years old is a book for $23.95”  “The gift for Lucy at 2 years old is a book for $27.95”  “Total Cost: $77.90  Order Number: ####  Programmer: Elizabeth” | “The gift for Jane at 3 years old is a blocks for $26.00”  “The gift for Tom at 5 years old is a book for $23.95”  “The gift for Lucy at 2 years old is a book for $27.95”  “Total Cost: $77.90  Order Number: ####  Programmer: Elizabeth” | Yes |

Test Case #3 (errors)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NAME | AGE | TOY | MESSAGE | CARD | BALLOON | COST/TOTAL |
| Jane | 3 | Book | "Toy is not age-appropriate. Do you want to buy a different toy? yes or no”  Reply: No | No | Yes | $21.00 |
| 1st time:  Tom  2nd time:  John | 1st time:  5  2nd time:  7 | 1st time:  Plushie  2nd time:  Book | 1st time:  "Toy is not age-appropriate. Do you want to buy a different toy? yes or no”  Reply: Yes  2nd time:  “Good choice!” | Yes | Yes | $23.95 |
|  |  |  |  |  |  | $44.95 |

|  |  |  |
| --- | --- | --- |
| EXPECTED OUTPUT | ACTUAL OUTPUT | PASS? |
| “The gift for Jane at 3 years old is a book for $21.00”  “The gift for John at 7 years old is a book for $23.95”  “Total Cost: $44.95  Order Number: ####  Programmer: Elizabeth” | “The gift for Jane at 3 years old is a book for $21.00”  “The gift for John at 7 years old is a book for $23.95”  “Total Cost: $44.95  Order Number: ####  Programmer: Elizabeth” | Yes |

Test Case #4 (errors)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| NAME | AGE | TOY | MESSAGE | CARD | BALLOON | COST/TOTAL |
| Jane | 3 | 1st time:  Block  2nd time:Blocks | 1st time:  “Invalid choice. Please try again.”  2nd time:  “Good choice!” | No | Yes | $26.00 |
| Tom | 5 | 1st time:  Legos  2nd time:Race Car3rd time:  Plushie | 1st time:  “Invalid choice. Please try again.”  2nd time:  “Invalid choice. Please try again.”  3rd time:  "Toy is not age-appropriate. Do you want to buy a different toy? yes or no”  Reply: No | Yes | Yes | $33.95 |
|  |  |  |  |  |  | $59.95 |

|  |  |  |
| --- | --- | --- |
| EXPECTED OUTPUT | ACTUAL OUTPUT | PASS? |
| “The gift for Jane at 3 years old is a blocks for $26.00”  “The gift for Tom at 5 years old is a plushie for $33.95”  “Total Cost: $59.95  Order Number: ####  Programmer: Elizabeth” | “The gift for Jane at 3 years old is a blocks for $26.00”  “The gift for Tom at 5 years old is a plushie for $33.95”  “Total Cost: $59.95  Order Number: ####  Programmer: Elizabeth” | Yes |

Pseudocode

Declare a string called childName

Declare an int called childAge

Declare an int called orderNumber

Declare a string called response

Declare a boolean called cont and initialize it to true

Declare a boolean called cont2 and initialize it to true

Declare a double called totalCost and initialize it to 0.0

Declare a final string called programmerName and initialize it to Elizabeth

Declare a DecimalFormat and initialize it to ###.00

Display welcome message

While cont2 is true

Initialize childName to blank string

Declare a Toy called toy

While cont is true

Ask user for child’s name

Get childName

Ask user for child’s age

Get childAge

Do

Ask user for toy selection

Set toy selection

If selection wasn’t valid

Display invalid selection

While toy selection isn’t valid

If toy is not age ok

Display toy is not age ok and ask if they would like to choose a different toy

If response is not yes

Set cont to false

Else

Display good choice

Set cont to false

Set toy’s cost

Ask user if they also want a card

If user wants a card

Add cart to the toy’s cost

Ask user if they also want a balloon

If user wants a balloon

Add balloon to toy’s cost

Display childName, childAge, toy, and toy’s cost

Ask user if they want another toy

Set cont to true

If response is not yes

Set cont2 to false

Declare a Random called rand

Set orderNumber to a random number between 1 and 10000

Display totalCost, orderNumber, and programmerName in dialog box