Antonio Scalfaro

Design-Template – House Cleaning Cost Program ( Revised )

**Requirements:**

Create a program that calculates the cost of cleaning a house that takes in user input, offers two or more packages of cleaning, and calculates the total cost. There should be three sizes for house size (small, medium, large), each costing more than the last tier.

**Design:**

* Create main function
* Generate Welcome message using multiple print statements.
  + Includes Name, Class, Date
* Retrieve user input for number of rooms, stored as an int numRooms
* Multiple print statements describing package options for cleaning
* Packages will be 1 or 2 for Basic or Deluxe
* Retrieve user input for package selection, stored as an int packageSelected
* Check for valid user inputs using if conditional statement
  + If numRooms <= 0 or packageSelected > 2 or packageSelected < 1
  + If true, print multiple statements declaring error
  + Print out acceptable parameters for input
  + Exit(0)
* If false, continue with program
* Create houseSize function outside of main() accepting int numRooms
* Using if conditional, determine size of house
  + numRooms < 3 = Small
    - Return 250
  + numRooms < 5 = Medium
    - Return 400
  + else = Large
    - Return 550
* Create packageSelectedCost function outside of main() accepting 2 ints, packageSelected and cost
  + If packageSelected == 1, Basic
    - Return cost + 100
  + Else, Deluxe
    - Return cost + 300
* Return to main function
* Call houseSize function passing numRooms assign return value to cost
* Call packageSelectedCost function passing packageSelected and cost, assign return value to finalCost
* Print out total the job will cost
* Print out thank you messge

**Test Plan:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test #** | **Number of Rooms** | **Package Selected Input (1 or 2)** | **Expected Output** |
| **1** | **1** | **1** | **$350 total cost** |
| **2** | **4** | **2** | **$700 total cost** |
| **3** | **10** | **2** | **$850 total cost** |
| **4** | **-2** | **2** | **Error Message, Invalid Input** |
| **5** | **0** | **0** | **Error Message, Invalid Input** |
| **6** | **2** | **-1** | **Error Message, Invalid Input** |

**Test 1:**

A screenshot of a computer

Description automatically generated

**Test 2:**

A screenshot of a computer

Description automatically generated with medium confidence

**Test 3:**

Graphical user interface

Description automatically generated

**Test 4:**

Graphical user interface

Description automatically generated

**Test 5:**

Graphical user interface

Description automatically generated

**Test 6:**

A screenshot of a computer

Description automatically generated