# DESIGN

Main

# Initialize constants

# Initialize variables

# Collect number of bedrooms

# Validate that bedrooms is a number

# If not, reprompt until we get a number

# Collect number of bathrooms

# Validate that bathrooms is a number

# If not, reprompt until we get a number

# Collect number of ‘other’ rooms

# Validate that ‘other rooms’ is a number

# If not, reprompt until we get a number

# Get size of bedrooms and whether to dust them

# Validate that size is a number

# Validate that ‘dust’ is either Y or N (either case works)

# if one of the other rooms is a kitchen, note it

# And subtract one from remaining rooms

# Kitchens are a flat $100, so we don’t care the size

# Get size of remaining other rooms and whether to dust them

# Validate that size is a number

# Validate that ‘dust’ is either Y or N (either case works)

# Get number of windows

# Get whether to perform a deep cleaning

# If size of bedroom is <= 100, it’s a small bedroom

# If size of bedroom is < 100 but < 150, it’s a medium size room

# Otherwise, it’s a large size room

# Add up all of the small, medium, and large sized rooms

# Add up all of the rooms that need to be dusted

# Add up the total number of bathrooms

# Add up the total number of windows

# Add up the subtotal (the sum the previous 4, plus a kitchen cost, if any)

# If this is a deep clean, apply a surcharge of 250%

# Display output

End

# TEST PLAN

|  |  |  |
| --- | --- | --- |
| Test # | Input | Expected Output |
| 1 | 1 100 sq ft bedroom, no dusting  1 bath,  1 kitchen,  1 200 sq ft living room, dusted,  2 windows  Deep cleaning | Total cost: 750 |
| 2 | 2 100 sq ft bedrooms, dusted,  1 140 sq ft bedroom,  1 200 sq ft living room, dusted,  2 bathrooms,  3 windows | Total cost 375 |
| 3 | 1 300 sq ft bedroom, dusted,  3 120 sq ft bedrooms, dusted,  1 250 sq ft living room, dusted,  1 kitchen,  2 “other” rooms, 200 sq ft each, dusted  3 bathrooms,  26 windows  Deep cleaning | Total cost: 890 |
| 4 | 1 1000 sq ft bedroom, dusted,  1 2500 sq ft living room, dusted,  3 bathrooms,  40 windows  Deep cleaning | Total cost: 1287.50 |

# SCREEN SHOTS

Case 1

A picture containing text, electronics, screenshot, computer

Description automatically generated

Case 2

A screenshot of a computer program

Description automatically generated with medium confidence

Case 3

A screenshot of a computer program

Description automatically generated with medium confidence

Case 4

A screenshot of a computer program

Description automatically generated with medium confidence