

Calculators for Businesses – Assignment01

In this assignment, students will complete code to create cost estimating calculators used by two imaginary businesses: Sonny Shines and Grand Facades.

Instructions

1. Download assignment01.zip and put your assignment01 folder into your MIS2402 workspace.
2. Start by editing sonny.html – this is the cost estimate calculator for Sonny Shines.

Part 1 - Sonny Shines

Sonny Shines is a window washing service. Customers can enter the number of first, second, and third story windows into the calculator to get a cost quote.

First floor windows cost \$5.00 a window. Second story windows cost \$7.00 a window. Third story and higher cost \$20.00 a window. There is also a base fee of \$100 to come on site.

3. A lot of work has been done for you in sonny.html.
 - You need to correct the logic error(s) in the click event handler.
 - Complete the getSonnyQuote function.
 - HINT: Do not rename the parameters x, y, and z. That's not the problem.
4. In some of our earlier examples, we had error trapping. So, if the user entered bad data, you would show the user an error message. We haven't learned about conditional statements yet, so you don't need to worry about any error trapping in this assignment.
5. Be sure to test your work when done. Is your math correct?
6. Be sure to round your answer to 2 decimal places and use concatenation to put a dollar sign in front of the number you calculated. To be clear: your function should return a string that starts with "\$".

The image shows two side-by-side screenshots of a web form titled "Sonny Shines Cost estimate". The form instructs users to "Type the quantities requested. Click the 'Get Quote' button." It has three input fields: "Number of first story windows:" (value: 1), "Number of second story windows:" (value: 2), and "Number of third story windows (and higher):" (value: 3). Below the fields is a blue "Get Quote" button. In the right screenshot, the button has been clicked, and the result "\$179.00" is displayed in a red circle. A red arrow points from the button in the left screenshot to the result in the right screenshot.

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Part 2 – Grand Facades

Grand Facades is a construction business specializing in cosmetic treatments for buildings. (For example, a building might have a false stone exterior, false brick, marble, wood, etc.)

Customers can enter height and width of a wall in meters, and the calculator will return the number of square meters required for the project, rounded to the nearest integer.

The customer may specify up to four walls (presumably a building has four exterior walls).

The calculator also assumes that an extra 10% of the material will be needed for the project, to cover unforeseen circumstances related to the project.

7. Start by editing `facades.html` – this is the materials estimate calculator for Grand Facades.
8. This start file has a bug in it. You will need to correct this bug before you can continue.

HINT: Two important lines are missing from the click event handler. The click event handler is the portion of the program that governs what happens when an HTML button is clicked. There are additional instructions in the start file.

9. As before, you are not expected to enforce an error trapping in this assignment.
10. Be sure to test your work when done. Is your math correct?

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11. Be sure to round your answer to 0 decimal places and use concatenation to add “ square meters required” to the end of your numeric answer. To be clear: your function should return a string that ends with “ square meters required”.

Grand Facades Materials estimate
Type the quantities requested. Click the "Get Estimate" button.

Wall 1 - height in meters:

Wall 1 - width in meters:

Wall 2 - height in meters:

Wall 2 - width in meters:

Wall 3 - height in meters:

Wall 3 - width in meters:

Wall 4 - height in meters:

Wall 4 - width in meters:

Grand Facades Materials estimate
Type the quantities requested. Click the "Get Estimate" button.

Wall 1 - height in meters:

Wall 1 - width in meters:

Wall 2 - height in meters:

Wall 2 - width in meters:

Wall 3 - height in meters:

Wall 3 - width in meters:

Wall 4 - height in meters:

Wall 4 - width in meters:

8580 square meters required

When you are done...

12. Be sure to upload both facades.html and sonny.html to assignment 1 on canvas.

How will this assignment be graded?

Item	Point Value
Part 1 – Bug corrected	10
Part 1 – Function returns a string as expected	10
Part 1 – calculation correct	10
Part 1 – Formatting correct	10
Part 1 – No unexpected bugs / issues	10
Part 2 – Bug corrected	10
Part 2 – Function returns a string as expected	10
Part 2 – calculation correct	10
Part 2 – Formatting correct	10
Part 2 – No unexpected bugs / issues	10