

CS362 Homework 4  
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Question 1:

My volume function takes a length, width, and height as integers or floats and returns the volume of a shape with those dimensions.

My test cases were:

1. cube of size 2x2x2 to test regular integer inputs
2. cube of size 1.5x2x2.5 to test floats as inputs
3. cube of size 0x2x2 to make sure it can handle 0's as inputs
4. cube of size 2x-1x2 to make sure it returns an error message with invalid inputs
5. cube of size 2x'f'x2 to make sure it returns an error message with invalid inputs
6. cube of size "hello"x2x2 to make sure it returns an error message with invalid inputs

Question 2:

My avg function takes a list of numbers as an input and returns the average of those numbers (rounded to 2 decimal places to fix floating point accuracy errors)

My test cases were:

1. List: [1,2,3,4,5] to test regular integer inputs
2. List: [1.0,2.5,3.6,4.8,5.5] to test floats as inputs
3. List: [] to test empty list (average is 0)
4. List: [0,0,0] to test only 0's as inputs
5. List: "hello" to make sure it returns an error message with invalid inputs
6. List: 5 to make sure it returns an error message with invalid inputs
7. List: [1,2,'g',4,5] to make sure it returns an error message with invalid inputs
8. List [1,2,"hi",4,5] to make sure it returns an error message with invalid inputs

Question3:

My fullname function takes two strings as inputs, a first name and a last name, then puts them together into one string with a space in between.

My test cases were:

1. First Name: "Ryan", Last Name "Smith" to test regular strings.
2. First Name: "Ryan", Last Name 5 to make sure it returns an error message with invalid inputs
3. First Name: "", Last Name "Smith" to make sure it returns an error on an empty string

Question 4:

- I. The component I am using from Facebook is the component that allows users to view other people's profiles as long as the other profile exists and isn't set to private. If it is then both people need to be friends to see the profile.
- II. Three possible unit tests for this component:

- A. Attempt to view a user's public page. Expected result: successfully view the page.
- B. Attempt to view a user's page that doesn't exist. Expected result: error 404, page not found.
- C. Attempt to view a user's private page when they aren't friends. Expected result: sorry, this page is set to private.