

Question #1 Deliverables:

1. Test number one just checks to see if the python file actually is able to correctly calculate the volume of a cube given a positive integer as its side length. I did this to make sure the python file actually does what its intended to do.
2. The second test checks to see if the function will return "input invalid" as a string because you can't have a cube with a negative side length. This was done to test how well the python file adjusts to input errors.
3. The third test checks to see if the function returns "input invalid" as a string if the input number is not an integer. This is done to make sure a string cannot be inputted. You could alter this to make only floats acceptable but wasn't sure how to go about that.

Question #2 Deliverables:

1. The first test for the average calculator simply tests to see if the program does what its intended to do. The list is full of numbers and checks to make sure the calculations are correct. This is done to make sure my algorithm is correct.
2. The second test checks to see if the list has any characters in it and that all values inside the list are integers. This is done to make sure the program correctly checks every value in the list.
3. The third test checks to see that the list is empty or not. This is done because if the length of the list is zero, you won't be able to find the average. The function should return the string "input invalid" so this tests that.

Question #3 Deliverables:

1. The first test makes sure the function operates correctly and properly returns the full name. This is necessary so that the software does what it is intended to do when correct inputs are used.
2. The second test is used to check that both first and last name inputs are actually strings and not anything else. This is used to make sure the two inputs actually could be made into a name.
3. The third test makes sure that both first and last names are capitalized. This also checks that only the first letter of each input is capitalized and other letters are lowercase when the full name is generated.

Question #4 Deliverables:

1. The component for my social media system is the posting functionality. This includes how users create and publicly post content to the page.

2.

Tests
First test I would do is to make sure the actual content of the post is the same as what the user inputted. This would be similar to the first tests I ran on the three examples above. For this specific social media site, this test would check if the caption/post outputted reflects what the user wanted or what variables were passed through the function.
The second test would make sure that the post appears on the users profile page and on other users pages. This means you would need to check that the post made appears with the rest of the users past content as well as having it interact with other users that are followed by the post creator.
The third test would check that the delete function works correctly. If a user can create a post they should also be able to delete one. This would basically mean that the function is able to reverse all other functions in this component. You could check this by seeing if the post appears on the users profile page after it was deleted.