1. Create an assert statement that throws an AssertionError if the variable spam is a negative integer.

Ans: Here's an example assert statement that will throw an AssertionError if the variable **spam** is a negative integer:

assert spam >= 0, "spam should be a non-negative integer"

1. Write an assert statement that triggers an AssertionError if the variables eggs and bacon contain strings that are the same as each other, even if their cases are different (that is, 'hello' and 'hello' are considered the same, and 'goodbye' and 'GOODbye' are also considered the same).

Ans: Here's an example assert statement that will trigger an AssertionError if the variables eggs and bacon contain strings that are the same, ignoring case:

assert eggs.lower() != bacon.lower(), "eggs and bacon should not be the same, ignoring case"

1. Create an assert statement that throws an AssertionError every time.

Ans: Here's an example assert statement that will always throw an AssertionError:

assert False, "This assert statement will always fail"

1. What are the two lines that must be present in your software in order to call logging.debug()?

Ans: In order to use the logging.debug() method, you need to include the following two lines in your Python code:

import logging

logging.basicConfig(level=logging.DEBUG)

1. What are the two lines that your program must have in order to have logging.debug() send a logging message to a file named programLog.txt?

Ans: To configure the logging module to send log messages to a file named programLog.txt and to use logging.debug() method, you can use the following two lines of code:

6. What are the five levels of logging?

7. What line of code would you add to your software to disable all logging messages?

8.Why is using logging messages better than using print() to display the same message?

9. What are the differences between the Step Over, Step In, and Step Out buttons in the debugger?

10.After you click Continue, when will the debugger stop ?

11. What is the concept of a breakpoint?