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

spam = -2

assert spam > 0,"Spam has to be positive integer"

2. 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).

eggs = input('enter the egg string')

bacon = input('enter the bacon string')

assert eggs.lower() != bacon.lower(),'Need to contain different strings’

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

assert(False, 'This will trigger assertion every time.')

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

import logging

logging.basicConfig(level=logging.DEBUG, format=' %(asctime)s - %(levelname)s - %(message)s')

5. 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?

import logging

logging.basicConfig(filename='programLog.txt', level=logging.DEBUG, format=' %(asctime)s - %(levelname)s - %(message)s')

6. What are the five levels of logging?

DEBUG, INFO, WARNING, ERROR, and CRITICAL

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

logging.disable(logging.CRITICAL)

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

* + We can control what can be logged
  + It's simple to see where, when, and even what line number a logging call is coming from.
  + we can log to files, sockets, and pretty much everything all at once.
  + We can categorize your logging based on its severity.

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

The Step button causes the debugger to enter a function call. The Over button will perform the function call quickly without walking into it. The Out button will easily execute the remaining code before it exits the function it is currently in.

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

The debugger will stop when it has reached the end of the program or a line with a breakpoint.

11. What is the concept of a breakpoint?

A breakpoint is a setting on a line of code that causes the debugger to pause when the program crosses that line.