

Assignment 1: Python Basics

Question 1. In the below elements which of them are values or an expression? eg:- values can be integer or string and expressions will be mathematical operators.

*
'VGU'
-89.5
-
/
+
6

Question 2. What is the difference between string and variable?

Question 3. Describe three different data types.

Question 4. What is an expression made up of? What do all expressions do?

Question 5. This assignment statements, like `spam = 10`. What is the difference between an expression and a statement?

Question 6. After running the following code, what does the variable `bacon` contain?

```
bacon = 22  
  
bacon + 1
```

Question 7. What should the values of the following two terms be?

```
'spam' + 'spamspam'  
  
'spam' * 3
```

Question 8. Why `dorito` is a valid variable name while `78` is invalid?

Question 9. What three functions can be used to get the integer, floating-point number, or string version of a value?

Question 10. Why does this expression cause an error? How can you fix it?

```
'I have eaten ' + 99 + ' burritos.'
```

Question 11. Write code that prints `Hello` if `1` is stored in `spam`, prints `Howdy` if `2` is stored in `spam`, and prints `Greetings!` if anything else is stored in `spam`.

Question 12. If your programme is stuck in an endless loop, what keys you'll press?

Question 13. How can you tell the difference between `break` and `continue`?

- Question 14.** In a for loop, what is the difference between `range(10)`, `range(0, 10)`, and `range(0, 10, 1)`?
- Question 15.** Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.
- Question 16.** If you had a function named `bacon()` inside a module named `spam`, how would you call it after importing `spam`? What statement creates a function?
- Question 17.** What is the difference between a function and a function call?
- Question 18.** How many global scopes are there in a Python program? How many local scopes?
- Question 19.** What happens to variables in a local scope when the function call returns?
- Question 20.** What is the concept of a return value? Is it possible to have a return value in an expression?
- Question 21.** If a function does not have a return statement, what is the return value of a call to that function?
- Question 22.** How do you make a function variable refer to the global variable?
- Question 23.** What is the data type of `None`?
- Question 24.** What does the sentence `import a_really_our_pets_named_eric` do?
- Question 25.** If you had a `bacon()` feature in a `spam` module, what would you call it after importing `spam`?
- Question 26.** What can you do to save a programme from crashing if it encounters an error?
- Question 27.** What is the purpose of the try clause? What is the purpose of the except clause?
- Question 28.** What exactly is `[]`?
- Question 29.** In a list of values stored in a variable called `spam`, how would you assign the value `'hello'` as the third value? (Assume `[2, 4, 6, 8, 10]` are in `spam`.)
- Question 30.** Let's pretend the `spam` includes the list `['a', 'b', 'c', 'd']` for the next three queries.