Python Assignment 01

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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.

*

'hello'

-87.8

-

/

   +

6

Answer: 'hello',-87.8, 6

2. What is the difference between string and variable?

Answer: String is a data-structure in python that is a sequence of characters. It can be a combination of words or numbers.

  Variable is used to store data values in python. It is a reserved memory location.

3. Describe three different data types.

Answer:

Int: it is use to store numeric data values.

a = 3

String: use to store sequence of character eg,. iNueron. They are enclosed in double or single quotes.

a = "iNueron"

list : similar to array, they are used to store values of different datatypes. List are mutable i.e they can be changed

l = [2, "abc", 3.4]

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

Answer: Expression is a combination of operators and operands. It can be a combination of values, variables, operands, operators. Expression when executed produces some value or result.

Ex: x = x+10, here x, 10 is operand and + is operator. Value 10 is added to x and then stored in x.

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

Answer: a statement is declared whereas expression executes some value or result. expression is a combination of operators and operands to compute a value. In this example the value 10 is assigned to spam but no operations are performed to evaluate and produce a result. Example for expression can be spam = spam +10

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

bacon = 22

bacon + 1

Answer: 23

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

'spam' + 'spamspam'

'spam' * 3

Answer: 'spamspamspam'

'spamspamspam'

8. Why is eggs a valid variable name while 100 is invalid?

Answer: According to rules declared for variable declaration, a variable name can be string but cannot start with a digit.

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

Answer: For integer use int(), for floating- point number we use float(), for string we use str().

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

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

Answer: '+' is a concatenation operation used only for string datatype. We can fix this issue by converting 99 integer into string literal using str().