Q1. 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

Ans1:-

a) * =Expression(multiplication operator)
b) 'hello'= String
c) -87.8 = Float
d) - =Expression(subtraction operator)
e) / =Expression(division operator)
f) + = Expression(addition operator)
g) 6 = Integer

Q2. What is the difference between string and variable?

Ans2:-

String:- Strings are data type in Python. It represents a sequences of character data .String are created by enclosing characters in quotes.

Ex- “Tom”, ’Alice’

Variables: -

In Python , a variable is named location used to store in memory. Variables are declared by writing the variable name & assigning it a value using equal sign(=).

Ex- a=5

Q3. Describe three different data types.

Ans3:-

Following are 3 different data types:-

a) Integer
b) Float
c) String

Q4. What is an expression made up of? What do all expressions do?

Ans4:-

In Python, An expression is combination of values , variables, operators & function call that can be evaluated to produce a value. Expressions are used to carry out calculations, assess conditions, and generate outcomes.

Q5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

Ans5:-

The primary difference between expressions and statements is found in how they are used and how they behave. Expressions are evaluated to create a value, whereas statements are logical instruction which is executed to carry out operations or manage the flow of the program. Typically, expressions are used within statements to compute values that are then included into the logic of the program.

Assignment statements like spam = 10 are examples of statements, as are control flow declarations like if-else or for loops, function and class definitions, and import declarations.

Q6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

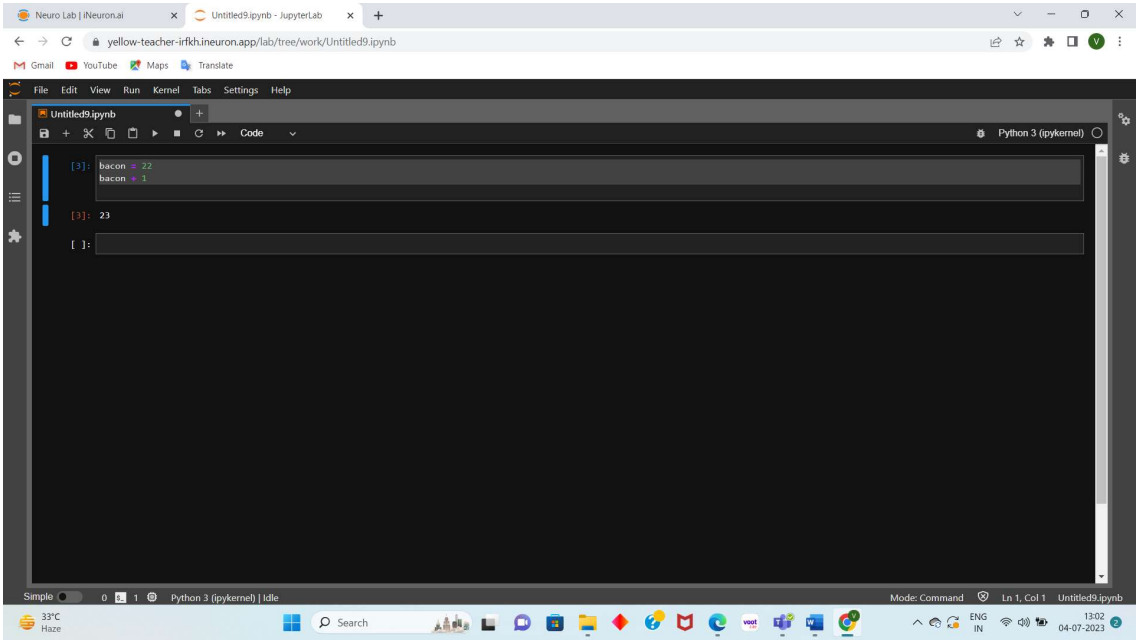
Ans6:

After running the given code

bacon = 22

bacon + 1

bacon will contain the updated value 23.



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

'spam' + 'spamspam'

'spam' * 3

Ans7:-

In both case value will be same ‘spamspamspam’

Q8. Why is eggs a valid variable name while 100 is invalid?

Ans8:-

Eggs is a valid variable name becase it start with a letter & 100 is invalid as it starts with a numeric digit

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

Ans- 9-

We can use following 3 function to get the integer, floating-point number, or string version of a value?

a) int()
b) float()
c) str()

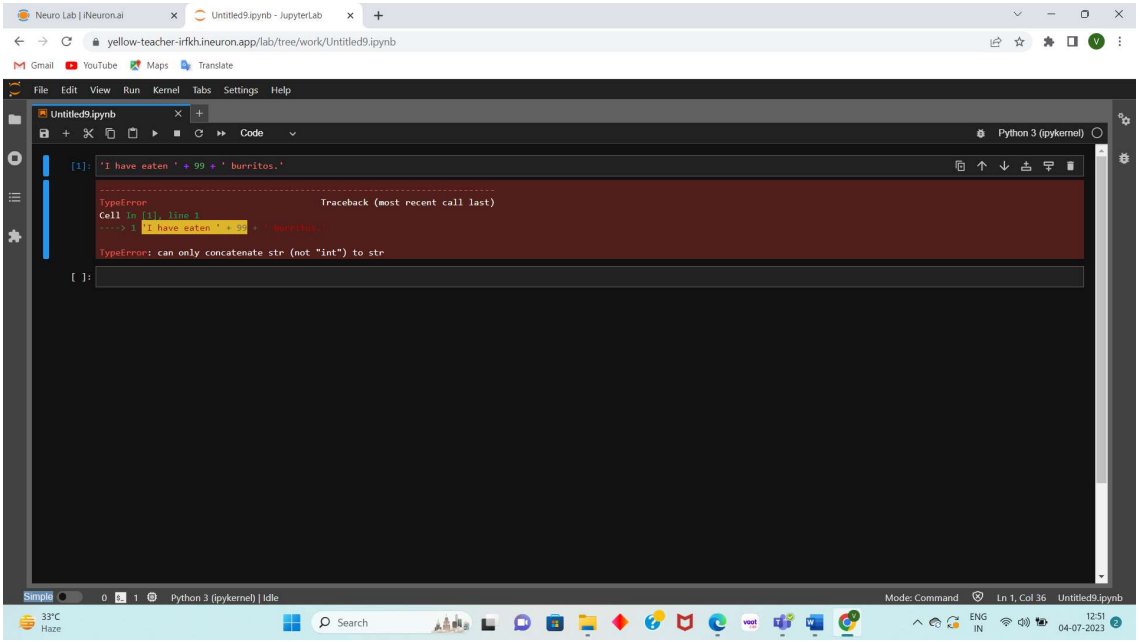
Q10. Why does this expression cause an error? How can you fix it?

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

Ans10:-

This expression causes an error because it involves to concatenate a string with an integer , followed by another integer

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



It requires the both operands on either side of the + operator be the same type.

We can fix the error by writing the code as below:-

‘I have eaten ‘ + str(99) + ' burritos.'