# ASSIGNMENT\_1

1. These are following **values** in the given elements:

['hello', -87.8, 6]

These are following expression in the given elements:

['\*', '-', '/', '+']

1. **String:** string is a the data type that can be enclosed in quotation marks i.e(“,’). Example: str1=”ineuron”, str2=’this is a string’.

**Variable:** variable is placeholder to store a datatype in memory. Example: var=20,Here var is a variable that stores the int datatype with value 20 in memory.

1. **Integer (int):** The integer data type represents whole numbers without decimal points. It can be positive or negative, including zero. For example, x = 100 or y = -150 assigns integer values to variables x and y,respectively.

**Boolean (bool):** The boolean data type represents truth values,

either True or False. Booleans are typically used in logical expressions and conditional statements to make decisions.

For example, is\_condition\_met= False assigns the boolean value False to the variable is\_condition\_met.

Booleans are used for comparisons, conditions, and control flow in programming.

**String (str):** The string data type represents a sequence of characters.

Strings are enclosed in either single quotes ('') or double quotes ("").

For example, institute = "ineuron" assigns the string " ineuron" to the variable institute.

1. An expression is a combination of operators and operands that is interpreted to produce some other value.

Example: a=10+12.here 10+12 is an expression.

1. Expressions only contain identifiers, literals and operators, where operators include arithmetic and boolean operators, the function call operator () the subscription operator [] and similar, and can be reduced to some kind of "value", which can be any Python object. Whereas statements are everything that can make up a line (or several lines) of Python code. Note that expressions are statements as well. Examples:

a=10 is statement.

a+b is expression.

1. bacon = 22

bacon + 1

Adds 1 to value stored in bacon which is 22 and stores again the result(23) in bacon. The value of bacon will be **23**.

1. spam+”spamspam”🡪”spamspamspam”

spam\*3 🡪 “spamspamspam”

1. The variable name must be start with letter (a-z) (A-Z) or underscore (\_) not interger in python. So eggs is valid whereas 100 is invalid.
2. **int()**-converts the value to integer.Example: print(int(“10”)) will convert the string 10 to integer 10.

**float()** –converts the value to float. print(int(“10.5”)) will convert the string 10.5 to float 10.

**str()**-converts the value to string. print(str(10)) will convert the integer 10 to string 10.