

Assignment-1

- 1) $\ast \rightarrow \text{expression}$ $/ \rightarrow \text{expression}$
 $'\text{hello}' \rightarrow \text{value}$ $+ \rightarrow \text{expression}$
 $-87.8 \rightarrow \text{value}$ $b \rightarrow \text{value}$
 $- \rightarrow \text{expression}$

2) Difference between String & Variable

- * Variables are used to store values, it gives data or information to computer for processing.
- * String is a datatype which can ~~be~~ acts as value to store in a variable.

3) Three different datatype:-

list, tuple, dictionary, string etc are some of the datatypes.

list:-

- * Elements in list are separated by commas, enclosed in square bracket `[]`.
- * Mutable, can be changed and contains different type of data (integer, floating point no, string, complex no).

String:-

- * Elements is expressed by single quote or double quotes, enclosed within brackets `()`.
- * It is immutable, cannot be changed after creating

Dictionary:-

- * Elements are enclosed by `{ }` curly braces.
- * Represents key-value pair, no special characters
- * Can store different datatypes e.g int, string, float, complex no, tuples, list, set.

4) Expression:-

* Are made of operators and operands which results in processing a final value.

$$a + b = 10$$

$a, b \rightarrow$ operands $+, = \rightarrow$ operator $10 \rightarrow$ value.

* A code is evaluated on its precedence of operations or an expression.

5) `spam = 10`

An expression assigns values to variables whereas a statement just executes keywords such as "print".

6) `Bacon = 23`

7) Both terms results in same value (i.e)

$\left. \begin{array}{l} \text{'spam' + 'spamspam'} \\ \text{'spam' * 3} \end{array} \right\} \rightarrow \text{spamspamspam}$

8) `'Eggs'` is a string, so it can be used as a variable name whereas `100` is an integer. Rules:-
Variable names cannot begin with number.

9) integer \rightarrow `int()` float \rightarrow `float()`
string \rightarrow `str()`

10) `'I have eaten' + 99 + 'burritos'`

This statement causes error because an integer cannot be concatenated with string in python.

99 can be enclosed in single quotes `'99'` to print the statement without error.