# ASSIGNMENT -1 SOLUTIONS

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:

IN THE BELOW ELEMENTS ,THE VALUES ARE: ‘hello’,

-87.8

6

EXPRESSIONS ARE

\*

-

/

+

2. What is the difference between string and variable?

|  |  |
| --- | --- |
| STRING | VARIABLE |
| 1. String refers to a sequence of characters represented as a single data type. | A Variable is a name that can refer to any value |
| 1. Strings can hold char data which are most commonly used data types | variables can be of several types like integers, floating point, string, Boolean. |
| 3 . strings are immutable that means values cannot be changed in memory once created. | Variable’s are mutable, values can be changed |
| 4 size of string is not fixed and they must be written between quotes (“ ”)  EX: s= “ hello” | Size of variable is not fixed  EX: v = 3  v = 1.23  v = ‘hi’ |

3 .Describe three different data types.

Answer:

Three types of data types are :

1. LIST

2. TUPLE

3. DICTIONARY

LIST:

|  |  |  |  |
| --- | --- | --- | --- |
| 1. List is a non-homogeneous data structure that stores the elements in single row and multiple rows and columns |  |  |  |
| |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | | 2 List can be represented by [ ] |  |  |  | | 3 List allows duplicate elements |  |  |  | | 4 List can use nested among all |  |  |  | | Example: [1, 2, 3, 4, 5] |  |  |  | | 5 List can be created using list() function |  |  |  | | 6 List is mutable i.e we can make any changes in list. |  |  |  | | 7 List is ordered |  |  |  | | 8 Creating an empty list  l=[] |  |  |  | |  |  |  |

TUPLE:

1 Tuple is also a non-homogeneous data structure that stores single row and multiple rows and columns

2 Tuple can be represented by

( )

3 Tuple allows duplicate elements

4 Tuple can use nested among all

Example: (1, 2, 3, 4, 5)

5 Tuple can be created using **tuple()** function.

6 Tuple  is immutable i.e we can not make any changes in tuple

7 Tuple is ordered

8 Creating an empty Tuple

t=()

DICTIONARY:

1 Dictionary is also a non-homogeneous data structure which stores key value pairs

2 Dictionary  can be represented by { }

3 Dictionary doesn’t allow duplicate keys.

4 Dictionary can use nested among all

Example: {1, 2, 3, 4, 5}

5 Dictionary can be created using **dict()**fun

6 Dictionary is mutable. But Keys are not duplicated.

7 Dictionary is ordered

8

Creating an empty dictionary

d= {}

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

Answer:

 An expression is a combination of operators, constants and variables. An expression may consist of one or more operands, and zero or more operators to produce a value.

 Ex: a = 2 + 3

 and expressions are used to evaluate the values or represent the result on the screen.

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

Answer:

Expression is made up of values, containers, and mathematical operators (operands) and

the statement is just like a command that a python interpreter executes like print.

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

Bacon = 22

bacon + 1

Answer: it gives 23

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

'spam' + 'spamspam'

'spam' \* 3

Answer:

‘spam’+’spamspam’ = ‘spamspamspam’

‘spam’ =’spamspamspam’

In bpth ways answer will be same

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

because we can't start giving variable an integer name. if we, we should begin with, a string-like alphabet name then integer. e100 or eggs100 is validAnswer

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

Answer:

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

Int ()

Float ()

String ()

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

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

Answer:

because 99 is an integer it cannot be concatenated with strings, if we have to concatenate it we need to do typecasting.