Exercise No: 6

Date: 12/10/2020

AIM:

To predict the output for the given python program.

PROGRAM:

PREDICT THE OUTPUT:

```
# Create a tuple, also called tuple packing.

Numbers = 1, 2

Print(numbers)
```

(1, 2)

```
# Create tuple with paranthesis.

Numbers = (1, 2, 3)

Print(numbers)
```

(1, 2, 3)

Create an empty tuple.

Numbers = ()

Print(numbers)

()

Create a tuple with one item. Note that the trailing comma is necessary

Numbers = 1,

Print(numbers)

1

Create a tuple with heterogenous items.

Random_tuple = “Hey”, (1, 2), 1, [“you”]

Print(random_tuple)

('Hey', (1, 2), 1, ['you'])

Create tuple with tuple() constructor.

Numbers = tuple()

Print(numbers)

()

Numbers = tuple([1, 2]) # Takes any sequence as input

Print(numbers)

(1,2)

Methods on tuples

Get length of list by using len() method.

Numbers = 5, 8, 8

Print(len(numbers))

3

Get index of an element using the index() method.

Numbers = 5, 8, 8

Print(numbers.index(8))

1

Count occurences of an item in a tuple.

Numbers = 5, 8, 8

Print(numbers.count(8))

2

Eggs = (‘hello’, 42, 0.5)

Eggs[0]

‘hello’

Hello

Eggs[1:3]

(42, 0.5)

Len(eggs)

3

Access elements of a tuple by indexing.

Str_tuple = “hey”, “there!”, “how”, “are”, “you?”

Print(str_tuple[0])

Hey

Print(str_tuple[len(str_tuple) – 1])

You?

Print(str_tuple[-1])

You?

Slicing a tuple.

Str_tuple = “hey”, “there!”, “how”, “are”, “you?”

Print(str_tuple[2:])

(‘how’, ‘are’, ‘you?’)

Print(str_tuple[:2])

(‘hey’, ‘there!’)

Print(str_tuple[-3:])

(‘how’, ‘are’, ‘you?’)

Print(str_tuple[:-3])

(‘hey’, ‘there!’)

Print(str_tuple[1:4])

('there!', 'how', 'are')

Get a copy of the tuple by slicing.

Print(str_tuple[:])

('hey', 'there!', 'how', 'are', 'you?')

Concatenate tuples.

Numbers = (1, 2)

Strings = ("Hey", "there")

Print(numbers + strings)

(5, 8, 8, 'Hey', 'there')

(1, 2, "Hey", "there")

Looping through tuple using ‘in’.

Numbers = 1, 2

For number in numbers:

  Print(number)

1,2

1 2

Check if element is present in tuple.

Numbers = 1, 2

Print(1 in numbers)

True

Print(5 in numbers)

False

Tuple packing.

We are packing two items 1 and 2 into the tuple.

Numbers = 1, 2

Tuple sequence unpacking.

Number of variables used has to be same as the number of items in the tuple.

Unpacking the tuple and assigning its items to x and y.

X, y = numbers

Note that this is also packing the args as a tuple which gets unpacked as the print method's arguments.

Print(x, y)

1 2

LINK:

http://103.53.53.18/mod/hvp/view.php?id=238

RESULT:

The output for the given program is obtained.