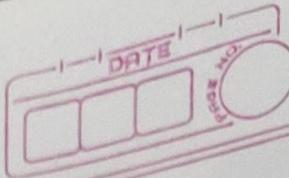


30/06/24

Test



Name:- Prasad pradip Sudame
Batch :- 2 , class assessment - 1st
"D20", 114647 (SD)

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Questions.

Q1)

List

Tuple

1) List is an mutable datatype

Tuple is an immutable datatype

2) List is collection of elements or values

Tuple is also collection of elements or values

3) List have elements in heterogeneous type i.e all kind of data-type value allowed

Tuple have elements in different types i.e every type of data type values are allowed.

②

4) Syntax:- L1 = [element]

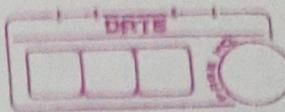
Syntax:- T1 = (-)

5) '[' brackets are used to create or define the list, elements are separated by commas

'()' brackets are used to create or define a tuple and elements are separated by comma.

6) You can change list; assign the elements

You can't change tuple can't apply assignment.



- The main difference between tuple & mutable and
- It is slower in execution
- Assign elements on different location i.e. different memory address
- Time complexity is there
- Speed is less than tuple

The List & immutable

It is faster in execution

It assigns the elements at one place and insertions to catch quickly

faster execution and fetching than list

Speed is high than list.

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Ex:
output

Q2)

→

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There are many terms & types in the python programming one of that is the 'set'

③ The set is the collection of values and it is the mutable datatype.

Set define as the collection of values which gives sequential output i.e. ascending order in result

Syntax:

set1 = {1, 2, 4, 5, 6}

The set defined or created by the '{ }' use of curly brackets

The set datatype is basically have its own operations such as "union", intersection, etc. The operations are used on the set.

A set is sequential manner data so if you give miss ordered value and run the set the result in the ascending order by default if you want descending you can use "reverse"

Ex: $s1 = \{1, 4, 3, 2\}$

`type(s1)`

`print(s1)`

output → `<class 'set'>`

`{1, 2, 3, 4}`

Q.3)

→

ii)

The python and many other programming language have datatypes the major data types are int, float string are lenity where.

int data type is a data type only for the integers or digit type values. so the int use for the Non-decimal values.

Ex: int values are:

$s = 10$

$p = 12$

$d = 15$

The above are int values and the digits are there you can use/give any no.

(ii) The float datatype is basically the decimal's type of data or the point form digits that is the numbers with digits. It basically used for all you can use anywhere.

The float datatype are

$$p = 10.45$$

$$q = 12.42$$

$$r = 15.10$$

Above are float no's. The main advantage of float using is the you can have the full value that 10.67 and in print form only 10 so, the whole figure value you can get in the float datatype memory are different in size so according to need you can use both.

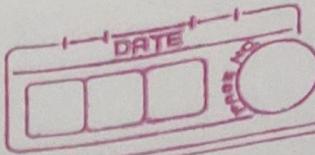
Q.5)

The doc string is used in function so describle and mention the use of the function, you describle or you can write the description of the function in docstring in python

In python to create function docstring is one content of the function creation

Syntax: `def function():`

"" Decstring here you can write about function ""



Q.6)

→ In python there are multiple operators to operate the values and perform the operations on the values and take input.

1) The '//' operator known as the floor division. It basically the double division you can perform the double division or suppose suppose, after single division the ans is different or long in result you want then double divide it, it'll give accurate and short answer so the floor division i.e. '//' is used.

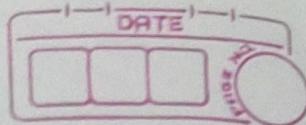
Q7)

→

The python operators are many and many kind of uses it has. The operators different and have it's own use

1) The '==' operator is an equality based operator and checking operator which matches the terms of two things, '==' is an relational operator for the condition / relation checking

The 'is' operator is "identity operator" which basically used for the checking of the operands are similar or they have same thing or



(Q.8)

→ The operators are used in python to operate the values and takes the accurate and correct result in the early form one of that is " += " operator; it has 2 signs that is + and = both simply means as the increment and then = that is assign the value.

Ex:-

$$s = 4$$

$$s += 4$$

print(s)

O/P → 5

(Q.9)

→ In python programming another programming language the main key term is the 'operators'. The operators are basically meant for the output because without operators we cannot perform any operations on the operand.

The 'membership operator' have 2 terms "in" and 'not in' are two operators, so the in operators is basically for the checking the existence of the values in the operand.

Ex: $s = \{1, 2, 3, 4, 5\}$

7 in s

O/P → false

It checks the existence and then returns true/false in the result

The 'ternary operator' is an one kind of operator, it can also say's the 2 check's for one line. or the double checking for one line; can also said as if else statements small version

basically the "comprehension" statement that checks condition if true then result or else will be the result

Ex:-

(i for i in range(1, 11) "even" if
i%2==0 else "odd")

Q. 11)

The if statement is known as the condition checking statement or the control statements.

The if is use for the condition's if it true then result will be printed if not then other output code or described. checks the condition if the if statement

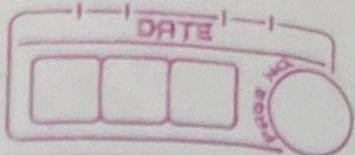
Ex: A = 1

B = 2

if A < B:

print ("yes B is greater")

O/P → yes B is greater



Q. 13)

→ The if else statement is used for the condition checking.

or control statement

The 'break' is the statement that breaks the execution flow and takes the control back from the block or loop.

So, the break can take control back from the execution block.

Ex:

(for i in range (1, 50):

if i == 20:

break;

O/p → 1

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