**Interview Questions Python**

1. Name four of the main data types in Python

Ans: Numbers, strings, lists, dictionaries, tuples, files, and sets are generally considered the main types of data. Types, None, and Booleans are sometimes also classified this way. The integer, floating-point, complex, fraction and decimal are numerical data types and simple strings and Unicode strings in Python 2 and text strings and byte strings in Python 3 are the types of string data types.

1. What is the difference between remove() function and del statement?

Ans : The user can use the remove() function to delete a specific object in the list.

* If you want to delete an object at a specific location (index) in the list, you can either use del or pop.

1. Write a program for remove() function and del statement?

Ans :

#remove()

list\_1 = [ 3, 5, 7, 3, 9, 3 ]

print(list\_1)

list\_1.remove(3)

print("After removal: ", list\_1)

#del

list\_1 = [ 3, 5, 7, 3, 9, 3 ]

print(list\_1)

del list\_1[2]

print("After deleting: ", list\_1)

1. What is swapcase() function in the Python?

Ans : It is a string's function which converts all uppercase characters into lowercase and vice versa.

1. How to remove whitespaces from a string in Python?

Ans : To remove the whitespaces and trailing spaces from the string, Python providies strip([str]) built-in function.

* This function returns a copy of the string after removing whitespaces if present. Otherwise returns original string.

1. How to remove leading whitespaces from a string in the Python?

Ans : To remove leading characters from a string, we can use lstrip() function.

* It is Python string function which takes an optional char type parameter. If a parameter is provided,
* it removes the character. Otherwise, it removes all the leading spaces from the string.

1. What is the use of break statement?

Ans : The break statement is used to terminate the execution of the current loop.

* Break always breaks the current execution and transfer control to outside the current block.
* If the block is in a loop, it exits from the loop, and if the break is in a nested loop, it exits from the innermost loop.

1. What is tuple in Python?

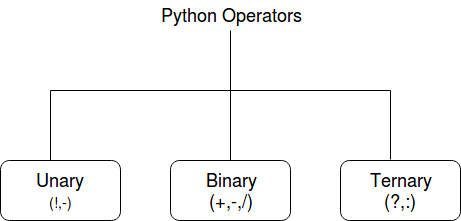
Ans : A tuple is a built-in data collection type.

* It allows us to store values in a sequence.
* It is immutable, so no change is reflected in the original data.
* It uses () brackets rather than [] square brackets to create a tuple.
* We cannot remove any element but can find in the tuple. We can use indexing to get elements.
* It also allows traversing elements in reverse order by using negative indexing.
* Tuple supports various methods like max(), sum(), sorted(), Len() etc.

1. What is an operator in Python?

Ans : An operator is a particular symbol which is used on some values and produces an output as a result.

* An operator works on operands. Operands are numeric literals or variables which hold some values.
* Operators can be unary, binary or ternary.
* An operator which requires a single operand known as a unary operator, which require two operands known as a binary operator and which require three operands is called ternary operator.



1. What is the difference between lists and tuples?

|  |  |
| --- | --- |
| Lists | Tuples |
| Lists are mutable, i.e., they can be edited | Tuples are immutable (they are lists that cannot be edited) |
| Lists are usually slower than tuples | Tuples are faster than lists |
| Lists consume a lot of memory | Tuples consume less memory when compared to lists |
| Lists are less reliable in terms of errors as unexpected changes are more likely to occur | Tuples are more reliable as it is hard for any unexpected change to occur |
| Lists consist of many built-in functions. | Tuples do not consist of any built-in functions. |
| Syntax:  list\_1 = [10, ‘Intellipaat’, 20] | Syntax:  tup\_1 = (10, ‘Intellipaat’ , 20) |

### What are the different types of operators in Python?

### Ans : Python uses a rich set of operators to perform a variety of operations. Some individual operators like membership and identity operators are not so familiar but allow to perform operations.

### Arithmetic Operators

### Relational Operators

### Assignment Operators

### Logical Operators

### Membership Operators

### Identity Operators

### Bitwise Operators

### What are the rules for a local and global variable in Python?

### Ans : **Global Variables:**

### Variables declared outside a function or in global space are called global variables.

### If a variable is ever assigned a new value inside the function, the variable is implicitly local, and we need to declare it as 'global' explicitly. To make a variable globally, we need to declare it by using global keyword.

### Global variables are accessible anywhere in the program, and any function can access and modify its value.

### **Example:**

### A = "JavaTpoint"

### def my\_function():

### print(A)

### my\_function()

**Local Variables:**

* Any variable declared inside a function is known as a local variable. This variable is present in the local space and not in the global space.
* If a variable is assigned a new value anywhere within the function's body, it's assumed to be a local.
* Local variables are accessible within local body only.
* **Example:**

def my\_function2():

K = "JavaTpoint Local"

print(K)

my\_function2()

1. What is a dictionary in Python?

Ans : The Python dictionary is a built-in data type.

* It defines a one-to-one relationship between keys and values. Dictionaries contain a pair of keys and their corresponding values.
* It stores elements in key and value pairs. The keys are unique whereas values can be duplicate.
* The key accesses the dictionary elements. Keys index dictionaries.

1. Give the output of this example: A[3] if A=[1,4,6,7,9,66,4,94].

Ans : Since indexing starts from zero, an element present at 3rd index is 7. So, the output is 7.

1. What is type conversion in Python?

Ans : Type conversion refers to the conversion of one data type iinto another.

* **int()** - converts any data type into integer type
* **float()** - converts any data type into float type
* **ord()** - converts characters into integer
* **hex(**) - converts integers to hexadecimal
* **oct()** - converts integer to octal
* **tuple() -** This function is used to convert to a tuple.
* **set() -** This function returns the type after converting to set.
* **list() -** This function is used to convert any data type to a list type.
* **dict() -** This function is used to convert a tuple of order (key,value) into a dictionary.
* **str() -** Used to convert integer into a string.
* **complex(real,imag) -** This functionconverts real numbers to complex(real,imag) number.

1. What is the difference between Python Arrays and lists?

Ans : Arrays and lists, in Python, have the same way of storing data. But, arrays can hold only a single data type elements whereas lists can hold any data type elements.

**Example:**

import array as arr

User\_Array = arr.array('i', [1,2,3,4])

User\_list = [1, 'abc', 1.20]

print (User\_Array)

print (User\_list)

**Output:**

array('i', [1, 2, 3, 4])

[1, 'abc', 1.2]

1. What is lambda function in Python?

Ans : The anonymous function in python is a function that is defined without a name. The normal functions are defined using a keyword "def", whereas, the anonymous functions are defined using the lambda function. **The anonymous functions are also called as lambda functions**.

1. Why do lambda forms in Python not have the statements?

Ans : Lambda forms in Python does not have the statement because it is used to make the new function object and return them in runtime.

1. What are functions in Python?

Ans : A function is a block of code which is executed only when it is called. To define a Python function, the def keyword is used.

1. **How do you write comments in python?**

Ans :

* Comments in Python start with a # character.
* alternatively at times, commenting is done using docstrings(strings enclosed within triple quotes).

1. **What does this mean: \*args, \*\*kwargs? And why would we use it?**

Ans : We use \*args when we aren’t sure how many arguments are going to be passed to a function, or if we want to pass a stored list or tuple of arguments to a function. \*\*kwargs is used when we don’t know how many keyword arguments will be passed to a function, or it can be used to pass the values of a dictionary as keyword arguments. The identifiers args and kwargs are a convention, you could also use \*bob and \*\*billy but that would not be wise.