



Basic Python Interview

Questions

part-II

Basic Python Interview Questions

Q16. 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.

Example:

```
def Newfunc():
    print("Hi, Welcome to Edureka")
Newfunc(); #calling the function
```

Output: Hi, Welcome to Edureka

Q17.What is __init__?

Ans: `__init__` is a method or constructor in [Python](#). This method is automatically called to allocate memory when a new object/instance of a class is created. All classes have the `__init__` method.

Here is an example of how to use it.

```
class Employee:
    def __init__(self, name, age,salary):
        self.name = name
        self.age = age
        self.salary = 20000
    E1 = Employee("XYZ", 23, 20000)
    # E1 is the instance of class Employee.
    #__init__ allocates memory for E1.
    print(E1.name)
    print(E1.age)
    print(E1.salary)
```

Output:

XYZ

23

20000

Q18.What is a lambda function?

Ans: An anonymous function is known as a lambda function. This function can have any number of parameters but, can have just one statement.

Example:

```
a = lambda x,y : x+y
print(a(5, 6))
```

Output: 11

Q19. What is self in Python?

Ans: Self is an instance or an object of a class. In Python, this is explicitly included as the first parameter. However, this is not the case in Java where it's optional. It helps to differentiate between the methods and attributes of a class with local variables.

The self variable in the init method refers to the newly created object while in other methods, it refers to the object whose method was called.

Q20. How does break, continue and pass work?

| | |
|----------|---|
| Break | Allows loop termination when some condition is met and the control is transferred to the next statement. |
| Continue | Allows skipping some part of a loop when some specific condition is met and the control is transferred to the beginning of the loop |
| Pass | Used when you need some block of code syntactically, but you want to skip its execution. This is basically a null operation. Nothing happens when this is executed. |

Basic Python Interview Questions

Q21. What does `[::-1]` do?

Ans: `[::-1]` is used to reverse the order of an array or a sequence.

For example:

```
import array as arr
My_Array=arr.array('i',[1,2,3,4,5])
My_Array[::-1]
```

Output: `array('i', [5, 4, 3, 2, 1])`

`[::-1]` reprints a reversed copy of ordered data structures such as an array or a list. the original array or list remains unchanged.

Q22. How can you randomize the items of a list in place in Python?

Ans: Consider the example shown below:

```
from random import shuffle
x = ['Keep', 'The', 'Blue', 'Flag', 'Flying', 'High']
shuffle(x)
print(x)
```

The output of the following code is as below.

```
['Flying', 'Keep', 'Blue', 'High', 'The', 'Flag']
```

Q23. What are python iterators?

Ans: Iterators are objects which can be traversed though or iterated upon.

Q24. How can you generate random numbers in Python?

Ans: Random module is the standard module that is used to generate a random number. The method is defined as:

```
import random
The statement random.random() method return the floating point number that is in the range of [0, 1). The function generates
random.random()
random float numbers. The methods that are used with the random class are the bound methods of the hidden instances. The
instances of the Random can be done to show the multi-threading programs that creates a different instance of individual
threads. The other random generators that are used in this are:
```

1. `randrange(a, b)`: it chooses an integer and define the range in-between $[a, b]$. It returns the elements by selecting it randomly from the range that is specified. It doesn't build a range object.
2. `uniform(a, b)`: it chooses a floating point number that is defined in the range of $[a,b]$. It returns the floating point number
3. `normalvariate(mean, sdev)`: it is used for the normal distribution where the mu is a mean and the sdev is a sigma that is used for standard deviation.
4. The Random class that is used and instantiated creates an independent multiple random number generators.

Basic Python Interview Questions

Q25. What is the difference between range & xrange?

Ans: For the most part, xrange and range are the exact same in terms of functionality. They both provide a way to generate a list of integers for you to use, however you please. The only difference is that range returns a Python list object and xrange returns an xrange object.

This means that xrange doesn't actually generate a static list at run-time like range does. It creates the values as you need them with a special technique called yielding. This technique is used with a type of object known as generators. That means that if you have a really gigantic range you'd like to generate a list for, say one billion, xrange is the function to use.

This is especially true if you have a really memory sensitive system such as a cell phone that you are working with, as range will use as much memory as it can to create your array of integers, which can result in a Memory Error and crash your program. It's a memory hungry beast.

Q26. How do you write comments in python?

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

Example:

```
#Comments in Python start like this
print("Comments in Python start with a #")
```

Output: Comments in Python start with a #

Q27. What is pickling and unpickling?

Ans: Pickle module accepts any Python object and converts it into a string representation and dumps it into a file by using dump function, this process is called pickling. While the process of retrieving original Python objects from the stored string representation is called unpickling.

Q28. What are the generators in python?

Ans: Functions that return an iterable set of items are called generators.

Q29. How will you capitalize the first letter of string?

Ans: In Python, the capitalize() method capitalizes the first letter of a string. If the string already consists of a capital letter at the beginning, then, it returns the original string.

Q30. How will you convert a string to all lowercase?

Ans: To convert a string to lowercase, lower() function can be used.

Example:

```
stg='ABCD'
print(stg.lower())
```

Output: abcd

DID YOU FIND THIS POST USEFUL?



Let me know in
the Comments

<https://www.linkedin.com/in/amit-verma90/>