**Strings**

1. Explain capitalize() method in Python.

It returns a string where the first character is upper case.

1. Describe the count(str, beg=0, end= len(string))

It will return the number of occurrences of str from the start and end of another string.

1. What do you n mean by encode(encoding= ‘UTF- 8,errors=’strict’)
2. Write the syntax for find() method

string.find(value, start, end)

1. Write the output of the following code.  
   # !/usr/bin/python   
   str1 = “this is string example…, wow!!!”;\  
   str2 = “exam”;  
   print strl.find(str2);  
   print strl.find(str2,10);  
   print strl.find(str2, 40);
2. Write the output of the following code.  
   # !/usr/bin/python  
   str = “this2009”; # No space in this string print str.isalnum( );  
   str = “this is string example….wow!!!”;  
   print str.isalnum();
3. Why we use islower() method in python?

The islower() method returns “True” if all characters in the string are lowercase, otherwise, it returns “False”.

1. What do you mean by string in Python?

string in Python is a sequence of characters.

1. What is indexing in context to Python strings? Why is it also called two-way indexing?

In Python strings, each separate character is assigned a location number, named “index” and this process is known as “indexing”. In backward direction, the indexes are numbered as -1, -2, -3, length. This is recognized as “two-way indexing”.

1. Describe Triple Quotes in Python.

Triple quotes (’’’) in python is used to comment a whole paragraph.

1. Define raw string with example.

Raw stings are created by prefixing a string with ‘r’ or ‘R’. Raw string treats backslash (\) as a literal character.

Example:

Code: 1

string\_try = 'Hi\nHello'

print(string\_try)

Output:

Hi

Hello

Code: 2

raw\_string\_try = r'Hi\nHello'

print(raw\_string\_try)

Output:

Hi\nHello

1. Explain zfill (width) with Syntax and Return Value
2. Write the output of the following code  
   # !/usr/bin/python  
   from string import maketrAns. # Required to call maketrAns. function.  
   intab = “aeiou” outtab = “12345”  
   trantab = maketrAns.(intab, outtab) str = “this is string example….wow!!!”; print str.trAns.late(trantab, ‘xm’);
3. Write the output of the given Python code

# !/usr/bin/python  
str = “this is really a string example…. wow!!!”;  
str = “is”;  
print str.rfind(str);  
print str.rfind(str, 0,10);  
print str.rfind(str, 10, 0);  
print str.find(str);  
print str.find(str, 0,10);  
print str.find(str, 10, 0);

1. What is the concept of immutable strings?

Immutable strings basically mean that the string value can’t be updated or changed.

1. What do you understand by traversing a string?

Traversing a string means accessing each character in the string, one at a time.

1. Explain replace(old, new [, max])

The replace() method returns a copy of the string in which the occurrences of old have been replaced with new, optionally restricting the number of replacements to max.

1. Write a program that reads a string and display the longest substring of the given string having just the consonants.

Done

1. Write a program that reads a string and then prints a string that capitalizes every other letter in the string.

Done

**Lists, Dictionaries and Tuples**

1. How many types of built-in types of sequences in Python?

There are mainly three basic sequence types: lists, tuples, and range objects.

1. Write the output of the given Python code.

# !/user/bin/python  
listl = [‘physics’, ‘chemistry’, 1997,2000];  
list2 = [1,2, 3,4,5, 6, 7];  
print “list2[l:5[ :”, list2[l:5]

1. What do you mean by mutability and immutability?

Mutability is updatable and immutability means not updatable

1. If a is (1, 2, 3), what is the difference (if any) between a\*3 and [a, a, a]?

No difference

1. How is an empty Tuple created?

tup = tuple()

1. What is the difference between (30) and (30,)?

(30) is an integer type and (30,) is a tuple type

1. What do you mean by list.append(obj)?

Appending obj at the end of list

1. Is list.reverse() method return a value?

No

1. Which function is used to reverse objects of list in place?

list.reverse()

1. Define list in Python.

A list is a data structure in Python that is a mutable, ordered sequence of elements. Every element or value that is inside of a list is called an item. Just as strings are defined as characters between quotes (“” or ‘’), lists are defined by having values between square brackets ([]).

1. Write the output of the given Python code :

#!/user/bin/python  
list1, list2 = [123, ‘xyz’], [456, ‘abc’]  
print cmpt(list1, list2);  
print cmp(list2, list1);  
list3 = list2 + [786];

1. Write the output of the given python code :

#!/user/bin/python  
aList1 = [123, ‘xyz’, ‘zara’, ‘abc’];  
aList.insert (3,2009) print “Final Lista List

1. How are lists different from strings when both are sequences?

List is mutable and string is immutable. List has multiple elements and string only has one.

1. Write a program to input any two matrices and print sum of matrices.
2. Write a program to input n x m matrix and find the sum of all numbers.

**Tuples**

1. Can we remove individual tuple elements?

No

1. Write the output of the given python code :  
   #!/user/bin/python  
   tup1 = (12, 34.56);  
   tup2 = (‘abc’, ‘xyz’);  
   #Following action is not valid for tuples  
   #tup1 [0] = 100;  
   #So let’s create a new tuple as follows  
   tup3 = tup1 + tup2;  
   print tup3;
2. Write the output of the given python code :  
   # !/user/bin/python  
   tuple1, tuple2 = (123, ‘xyz’), (456, ‘abc’)  
   print cmp (tuple1, tuple2) ;  
   print cmp (tuple2, tuple1) ;  
   tuple3 = tuple2 + (786,);  
   print cmp (tuple2, tuple3)
3. Write a program to input ‘n’ numbers and separate the tuple in the following manner.  
   Example  
   Tl=(1,3,5)  
   T2=(2,4,6)

Done

1. Write a program to input ‘n’ employees’ salary and find minimum & maximum salary among ‘n’ employees.

Done

**Dictionaries**

1. How are dictionaries different from lists?

Elements in a list are accessed by their index whereas elements in a dictionary are accessed by their key

1. When are dictionaries more useful than lists?

When you don’t know the index value of an element in a list.

1. What is a key-value pair with reference to Python dictionary?

A key value pair is the way dictionaries store elements in them.

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