

# python\_assignment

December 24, 2018

## 1 Questions to practice

### 1.1 Questions

1 . Calculate length of a list

2 . which will create a list: - some\_list = list() - some\_list = list([1, 2, 3]) - some\_list = [1, 2, 3] - some\_list = list(1, 2, 3)

3 . let a list be s = [1, 3, 2, 1, 5, 3, 9] . use min(s) , max(s), sum(s). also calculate the average of the list.

4 . use import random and call random.shuffle(some\_list) to shuffle the contents of the list some\_list .

5 . print the last 3 elements of a list without using for loops.

6 . let some\_list = [1, 2, 3, 6, 5, 1, 7, 3] . what is the output of: some\_list[: -1] - some\_list[-4: -2] - some\_list[2: -3]

7 . Let this section of code

```
def extendList(val, list=[]):  
    list.append(val)  
    return list
```

```
list1 = extendList(10)  
list2 = extendList(123,[])  
list3 = extendList('a')
```

```
print "list1 = %s" % list1  
print "list2 = %s" % list2  
print "list3 = %s" % list3
```

What should be the output?

Why is it different?

How to fix this?

8 . given some code using classes:

```
class A():  
    x = 1
```

```
a = A()
print a.x
```

```
b = [A()] * 10
```

```
for ix in b:
    print ix.x
```

```
b[2].x = 5
```

```
for ix in b:
    print ix.x
```

Why is output different from expected?

How can we fix this problem?

9 . use sorted in lists. consider the code below:

```
class Obj:
    def __init__(self, a=0, b=1):
        self.a = a
        self.b = b

if __name__ == "__main__":
    objects = [Obj(1, 2), Obj(5, 4), Obj(7, 3),
               Obj(11, 42), Obj(8, 0), Obj(5, 9)]
```

Sort the above list of objects using > a as key > b as key

10 . List and string slicing

```
s = "This is introduction to python for web development"
```

```
# Obtain each word of the string in a list.
```

11 . Print Pyramid patterns using for and while loops

```
@
@@
@@@
@@@@
@@@@@
```

12 . What will the following code print

```
some_string = "abacdaegakialaop"
print some_string.split('a', 2)
```