

(a) Write a python script to demonstrate list functions.

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Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (A
Type "help", "copyright", "credits" or "license()" for more information.
>>> samplelist=[11,"Yatri","Yathrath","Yuvraj",44.5]
>>> samplelist.append("The End")
>>> print(samplelist)
[11, 'Yatri', 'Yathrath', 'Yuvraj', 44.5, 'The End']
>>> #this was append()
>>> #insert()
>>> samplelist.insert(1,"Smily")
SyntaxError: invalid syntax. Perhaps you forgot a comma?
>>> samplelist.insert(1,"Smily")
>>> print(samplelist)
[11, 'Smily', 'Yatri', 'Yathrath', 'Yuvraj', 44.5, 'The End']
>>> #extend()
>>> samplelist1=[11,22,33,44,55]
>>> samplelist2=["Yatharth","yatri","yuvraj"]
>>> samplelist1.extend(samplelist2)
>>> print(samplelist1)
[11, 22, 33, 44, 55, 'Yatharth', 'yatri', 'yuvraj']
>>> #remove()
>>> samplelist.remove("Yatri")
>>> print(samplelist)
[11, 'Smily', 'Yathrath', 'Yuvraj', 44.5, 'The End']
>>> #clear()
>>> samplelist.clear()
>>> print(samplelist)
[]
>>> samplelist=[11, 'Yatri', 'Yathrath', 'Yuvraj', 44.5,11]
>>> print(samplelist)#list can contain dubllicate values
[11, 'Yatri', 'Yathrath', 'Yuvraj', 44.5, 11]
>>> smplelist.remove(11)
Traceback (most recent call last):
  File "<pyshell#21>", line 1, in <module>
    smplelist.remove(11)
NameError: name 'smplelist' is not defined. Did you mean: 'samplelist'?
>>> samplelist.remove(11)
>>> print(samplelist)
['Yatri', 'Yathrath', 'Yuvraj', 44.5, 11]
>>>

```

(b) Write a python script to demonstrate tuple and its functions.

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Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)]
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>>> #tuple
>>> sampletuple=tuple((11,22,"Yuvraj","Yatharth",True))
>>> print(sampletuple)
(11, 22, 'Yuvraj', 'Yatharth', True)
>>> sampletuple1=()
>>> type(sampletuple1)
<class 'tuple'>
>>> sampletuple1=(1)
>>> print(sampletuple1)
1
>>> sampletuple1=(1,2,3)
>>> print(sampletuple)
(11, 22, 'Yuvraj', 'Yatharth', True)
>>> print(sampletuple1)
Traceback (most recent call last):
  File "<pyshell#9>", line 1, in <module>
    print(sampletuple1)
NameError: name 'sampletuple1' is not defined. Did you mean: 'sampletuple'?
>>> print(sampltuple1)
Traceback (most recent call last):
  File "<pyshell#10>", line 1, in <module>
    print(sampltuple1)
NameError: name 'sampltuple1' is not defined. Did you mean: 'sampletuple'?
>>> print(sampletuple1)
(1, 2, 3)
>>> names=("a","b","c")
>>> print(names)
('a', 'b', 'c')
>>> numbers=(1,2,3,4)
>>> numbers
(1, 2, 3, 4)
>>> mixedvalues=(1,"a",1.2)
>>> print(mixedvalues)
(1, 'a', 1.2)
>>> print(sampletuple)
(11, 22, 'Yuvraj', 'Yatharth', True)
>>> print(sampletuple[0])
11
>>> print(sampletuple[-1])
True
>>> print(sampletuple[1:3])
(22, 'Yuvraj')
>>> print(sampletuple[:2])
(11, 'Yuvraj', True)
>>> print(sampletuple[1:3:2])
(22,)
>>> #this was accessing elements using indexing and slicing
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>>> print(sampletuple)
(11, 22, 'Yuvraj', 'Yatharth', True)
>>> type(sampletuple)
<class 'tuple'>
>>> smapletuple[2]
Traceback (most recent call last):
  File "<pyshell#27>", line 1, in <module>
    smapletuple[2]
NameError: name 'smapletuple' is not defined. Did you mean: 'sampletuple'?
>>> sampletuple[2]="Yatri"
Traceback (most recent call last):
  File "<pyshell#28>", line 1, in <module>
    sampletuple[2]="Yatri"
TypeError: 'tuple' object does not support item assignment
>>> #tuple is immutable
>>> sampletuple=list(sampletuple)
>>> #coverting tuple into list
>>> sampletuple[2]="yatri"
>>> print(sampletuple)
[11, 22, 'yatri', 'Yatharth', True]
>>> sampletuple=tuple(sampletuple)
>>> print(sampletuple)
(11, 22, 'yatri', 'Yatharth', True)
>>> #converting list into tuple
>>> #delete tuple
>>> del sampletuple
>>> merge=sampletuple1+sampletuple2
Traceback (most recent call last):
  File "<pyshell#39>", line 1, in <module>
    merge=sampletuple1+sampletuple2
NameError: name 'sampletuple2' is not defined. Did you mean: 'sampletuple1'?
>>> merge=numbers+names
>>> print(merge)\
...
...
...
SyntaxError: multiple statements found while compiling a single statement
>>> print(merge)
(1, 2, 3, 4, 'a', 'b', 'c')
>>> #tuple functions count ,max,min

```

```
>>> sampletuple=(1,2,3)
>>> print(len(sampletuple))
3
>>> print(max(sampletuple))
3
>>> print(min(sampletuple))
1
>>> position=sampletuple.index(2)
>>> print("position:",position)
position: 1
>>> totalitem=sampletuple.count(2)
>>> print("item count=", totalitem)
item count= 1
>>> #list may contains tuple
>>> mixed=[ (11,22,33), [44,55,66.6], "Yatharth",True]
>>> print(mixed)
[(11, 22, 33), [44, 55, 66.6], 'Yatharth', True]
>>> mixed[3]="Yatri"
>>> print(mixed)
[(11, 22, 33), [44, 55, 66.6], 'Yatharth', 'Yatri']
>>> mixed[1][2]=66
>>> print(mixed)
[(11, 22, 33), [44, 55, 66], 'Yatharth', 'Yatri']
>>> mixed[0][2]=30
Traceback (most recent call last):
  File "<pyshell#61>", line 1, in <module>
    mixed[0][2]=30
TypeError: 'tuple' object does not support item assignment
>>>
```

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