

Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

'hello world'

'hello world'

"hello"

'hello'

my_dog=['sammy','sam']

print(type(my_dog))

<class 'list'>

print(int(float),str,list,tuple,dictionary,set,bool)

Traceback (most recent call last):

File "<pyshell#4>", line 1, in <module>

print(int(float),str,list,tuple,dictionary,set,bool)

TypeError: int() argument must be a string, a bytes-like object or a real number, not 'type'

print("hello I'm Kiruba")

hello I'm Kiruba

print("hello 1 \n hello 2")

hello 1

hello 2

print("hello 1 \t hello 2")

hello 1 hello 2

len("hello string")

12

len("now i'am using decode")

21

s="hello"

s

'hello'

print(s)

hello

s[0]

'h'

s[3]

'l'

```
s[1:]
Traceback (most recent call last):
  File "<pyshell#23>", line 1, in <module>
    s[1:]
NameError: name 'l' is not defined

s[1:]
'ello'

s[1:3]
'el'

s[:3]
'hel'

s[: ]
'hello'

s[-1]
'o'

s[-3]
'l'

s[-4]
'e'

s[::1]
'hello'

s[::2]
'hlo'

s[::3]
'hl'

s[::4]
'ho'

s[:: -1]
'olleh'

s=s+"concatenation is possible"
s
'helloconcatenation is possible'
```

```
s="concatenation is possible"
s
'helloconcatenation is possible'
s*3
'helloconcatenation is possiblehelloconcatenation is possiblehelloconcatenation is possible'

a="welcome students"
a
'welcome students'
a.upper()
'WELCOME STUDENTS'

a.lower()
'welcome students'
a.split()
['welcome', 'students']

a.split('c')
['wel', 'ome students']
a.split('t')
['welcome s', 'uden', 's']
"insert anthoer string with curly braces: {}".format('this is the inserted string')
'insert anthoer string with curly braces: this is the inserted string'

a="comment checking"#this is comment
a
'comment checking'

MULTILINE COMMENT
SyntaxError: invalid syntax
a="before restart"
print(a)
before restart

a="after restart"
a
'after restart'

===== RESTART: Shell =====
a=[]
type(a)
```

```
a=[]
type(a)
<class 'list'>
my_list=[1,2,3]
my_list=["it is beautiful",23,100,2.55,'o']
print
<built-in function print>
print(my_list)
['it is beautiful', 23, 100, 2.55, 'o']
len(my_list)
5

my_list=["one","two","three",4,6,8]
my_list[0]
'one'

my_list[:3]
['one', 'two', 'three']
my_list[1:]
['two', 'three', 4, 6, 8]
my_list
['one', 'two', 'three', 4, 6, 8]

my_list=my_list+["reassign list"]
my_list
['one', 'two', 'three', 4, 6, 8, 'reassign list']
my_list*3
['one', 'two', 'three', 4, 6, 8, 'reassign list', 'one', 'two', 'three', 4, 6, 8, 'reassign list', 'one', 'two', 'three', 4, 6, 8, 'reassign list']

my_list
['one', 'two', 'three', 4, 6, 8, 'reassign list']

list1=[1,2,3]
list1
[1, 2, 3]
list1.append("appending to the present list")
list1
[1, 2, 3, 'appending to the present list']
list1.pop()
```

```
a=[]
type(a)
<class 'list'>
my_list=[1,2,3]
my_list=["it is beautiful",23,100,2.55,'o']
print
<built-in function print>
print(my_list)
['it is beautiful', 23, 100, 2.55, 'o']
len(my_list)
5

my_list=["one","two","three",4,6,8]
my_list[0]
'one'

my_list[:3]
['one', 'two', 'three']
my_list[1:]
['two', 'three', 4, 6, 8]
my_list
['one', 'two', 'three', 4, 6, 8]

my_list=my_list+["reassign list"]
my_list
['one', 'two', 'three', 4, 6, 8, 'reassign list']
my_list*3
['one', 'two', 'three', 4, 6, 8, 'reassign list', 'one', 'two', 'three', 4, 6, 8, 'reassign list', 'one', 'two', 'three', 4, 6, 8, 'reassign list']

my_list
['one', 'two', 'three', 4, 6, 8, 'reassign list']

list1=[1,2,3]
list1
[1, 2, 3]
list1.append("appending to the present list")
list1
[1, 2, 3, 'appending to the present list']
list1.pop()
```

```
list1
[1, 2, 3]
list1.append("appending to the present list")
list1
[1, 2, 3, 'appending to the present list']
list1.pop()
'appending to the present list'
list1
[1, 2, 3]
list1.pop(0)
1
list1
[2, 3]
list1.pop(1)
3
list1
[2]
```

===== RESTART: Shell =====

```
new_list=['a','e','i','o','u']
new_list
['a', 'e', 'i', 'o', 'u']
new_list.reverse()
new_list()
Traceback (most recent call last):
  File "<pyshell#117>", line 1, in <module>
    new_list()
TypeError: 'list' object is not callable
new_list
['u', 'o', 'i', 'e', 'a']

new_list.sort()
new_list
['a', 'e', 'i', 'o', 'u']
```

===== RESTART: Shell =====

```
list1=[1,2,3]
list2=[4,5,6]
list3=[7,8,9]
matrix=[list1,list2,list3]
matrix
```

===== RESTART: Shell =====

```
dict={}
print(type(dict))
<class 'dict'>
my_dict={'key1':'value1','key2':'value2'}
my_dict['key2']
'value2'

my_dict={'key1':'value1','key2':[1,2,3],'key3':['item0','item1','item2']}
SyntaxError: closing parenthesis ']' does not match opening parenthesis '{'
my_dict={'key1':'value1', 'key2':[1,2,3], 'key3':['item0','item1','item2']}

SyntaxError: unterminated string literal (detected at line 1)
my_dict={'key1':'value1', 'key2': [1,2,3], 'key3': ['irl','ir2']}

my_dict

{'key1': 'value1', 'key2': [1, 2, 3], 'key3': ['irl', 'ir2']}
my_dict['key3']

['irl', 'ir2']
my_dict['key3'][0]

'irl'
my_dict['key3'][0].upper()

'IRL'
my_dict['key3'][0].lower()

'irl'
my_dict['key1']=123

my_dict

{'key1': 123, 'key2': [1, 2, 3], 'key3': ['irl', 'ir2']}

d={}

d['animal']='Dog'
```

d

```
{'animal': 'Dog', 'answer': 50}
d.keys()
```

```
dict_keys(['animal', 'answer'])
d.values()
```

```
dict_values(['Dog', 50])
d.items()
```

```
dict_items([('animal', 'Dog'), ('answer', 50)])
```

===== RESTART: Shell =====

```
t=()
```

```
type(t)
```

```
<class 'tuple'>
```

```
t=(1,2,3)
```

```
len(t)
```

```
3
```

```
t[0]
```

```
1
```

```
t.index[2]
```

Traceback (most recent call last):

File "<pyshell#166>", line 1, in <module>

t.index[2]

TypeError: 'builtin_function_or_method' object is not subscriptable

```
t.index(2)
```

```
1
```

```
t.count(2)
```

```
1
```

===== RESTART: Shell =====


```
===== RESTART: Shell =====
```

```
x=set()
print(type(x))
<class 'set'>
x.add(1)
x
|
{1}
x.add(2)
x
{1, 2}
x.add(1)
x
{1, 2}
list1=[1,1,3,1,6,8,9,8,9,6,5]
set(list1)
{1, 3, 5, 6, 8, 9}
```

```
===== RESTART: Shell =====
```

```
a=True
a
True
1>2
False
>> b=None
..
>> print(b)
..
None
```

```
===== RESTART: Shell =====
```

```
a=True
```

```
a
```

```
True
```

```
1>2
```

```
False
```

```
>>> b=None
```

```
...
```

```
>>> print(b)
```

```
...
```

```
None
```

```
>>>
```

```
>>>
```

```
===== RESTART: Shell =====
```

```
>>> 2==2
```

```
...
```

```
True
```

```
>>> 2==3
```

```
...
```

```
False
```

```
>>> 2!=1
```

```
...
```

```
True
```

```
>>> 1!=1
```

```
...
```

```
False
```

```
>>> 2<1
```

```
...
```

```
False
```

```
>>> 2<5
```

```
...
```

```
True
```

```
>>> 2<=3
```

```
...
```

```
True
```

```
>>> 2>=2
```

```
...
```

```
True
```