

PYTHON PROGRAMMING

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Identifiers

- A Python identifier is a name used to identify a variable, function, class, module or other object.
- The name can start with a letter or underscore followed by letters, digits or underscores.
- Python does is case sensitive.
- Indentation is a must in python.

Python Strings

- Continuous set of characters enclosed in quotation marks.

```
#!/usr/bin/python
```

```
str = "good morning all...!"
```

```
print str          # display the string
```

```
print str[0]       # First letter of string
```

```
print str[3:7]     #slicing
```

```
print str[6:]      # print string starting from 6 th character
```

```
print str * 2      # string will print twice
```

```
print str + "How are you?" # Concatenate strings
```

output :

good morning all...!

g

d mo

orning all...!

good morning all...!good morning all...!

good morning all...!How are you?

Lists

- Compound datatype
- Comma separated items enclosed within square brackets.
- Similar to array in C.

Program:

```
#!/usr/bin/python
```

```
list1 = [ 'aaa','bbb', 12, 456 , 'zzz' ]
```

```
list2 = [ 'aa','bb' ]
```

```
print list1
```

```
print list2
```

```
print list1[0]
```

```
print list1[2:3]      # print list[2]
```

```
print list1[2:4]      # print list[2], list[3]
```

```
print list1 * 2       # print list1 twice
```

```
print list1 + list2      # concatenate list1 and list2
```

output :

```
['aaa', 'bbb', 12, 456, 'zzz']  
['aa', 'bb']  
aaa  
[12]  
[12, 456]  
['aaa', 'bbb', 12, 456, 'zzz', 'aaa', 'bbb', 12, 456, 'zzz']  
['aaa', 'bbb', 12, 456, 'zzz', 'aa', 'bb']
```

Tuples

- It is a datatype similar to list.
- Consists of a number of values separated by commas enclosed within parentheses.

Program:

```
#!/usr/bin/python  
  
tup1 = ('aaa','bbb',12,456,'zzz')  
  
tup2 = ('aa','bb')  
  
print tup1  
  
print tup2  
  
print tup1[0]  
  
print tup1[2:3]      # print list[2]  
  
print tup1[2:4]      # print list[2],list[3]
```

```
print tup1 * 2      # print list1 twice

print tup1 + tup2   # concatenate list1 and list2
```

output :

```
('aaa', 'bbb', 12, 456, 'zzz')
('aa', 'bb')
aaa
(12,)
(12, 456)
('aaa', 'bbb', 12, 456, 'zzz', 'aaa', 'bbb', 12, 456, 'zzz')
('aaa', 'bbb', 12, 456, 'zzz', 'aa', 'bb')
```

Dictionary

- A kind of hash table type.
- Keys and values will be there.
- Both keys and values are enclosed in curly braces.

Program :

```
#!/usr/bin/python

dic = {}

dic[0] = 'hi'

dic['one'] = 256

dic2 = { 'Name': 'Anu', 'Age' : 2 }

print dic2                      # print the dictionary

print dic.keys()                # print all keys
```

```
print dic.values()
```

```
# print all values
```

output:

```
{'Age': 2, 'Name': 'Anu'}
```

```
[0, 'one']
```

```
['hi', 256]
```