PYTHON PROGRAMMING

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       # contenate 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        # contenate 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]
```

If...else

Program :

To find biggest among two numbers.

```
a=5
b=6
if a>b:
   print("{} is bigger".format(a))
else:
   print("{} is bigger".format(b))
```

output:

6 is bigger

When inputs are taking from user

Program :

To find biggest among two numbers.

```
a=input("Enter number1 : ")
b=input("Enter number2 : ")

if a>b:
   print("{} is bigger".format(a))
else:
   print("{} is bigger".format(b))
```

output:

```
Enter number1 : 45
Enter number2 :23
45 is bigger
```

Program :

Find the biggest among 3 numbers.

```
a=input("Enter number1 : ")
b=input("Enter number2 : ")
```

```
c=input("Enter number3 : ")


if (a>b) and (a>c):
   print("{} is bigger".format(a))
elif (b>a) and (b>c):
   print("{} is bigger".format(b))
else:
   print("{} is bigger".format(c))
```

output:

```
Enter number1 : 4
Enter number2 : 34
Enter number3 : 2

34 is bigger
```