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Basic data structure used in python

Program 1 : Python program to illustrate a simple list

```
L = [1, "a" , "string" , 1+2]
print (L)
L.append(6)
print (L)
L.pop()
print (L)
print (L[1])
```

OUTPUT:

```
/data/user/0/org.qpython.qpy3/files/bin/qpython3-
android5.sh  /storage/emulated/0/qpython/scripts3
/.last_tmp.py  && exit
thon/scripts3/.last_tmp.py  && exit            <
[1, 'a', 'string', 3]
[1, 'a', 'string', 3, 6]
[1, 'a', 'string', 3]
a

#[QPython] Press enter to exit ...
```

Program 2: Python program to illustrate dictionary

```
squares = {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
print(squares.pop(4))
```

```
print(squares)
print(squares.popitem())
print(squares)
squares.clear()
print(squares)
```

OUTPUT:

```
/data/user/0/org.qpython.qpy3/files/bin/qpython3-
android5.sh  /storage/emulated/0/qpython/scripts3
/.last_tmp.py  && exit
thon/scripts3/.last_tmp.py  && exit              <
16
{1: 1, 2: 4, 3: 9, 5: 25}
(5, 25)
{1: 1, 2: 4, 3: 9}
{}

#[QPython] Press enter to exit ...
```

Program 3: Python program to illustrate tuple

```
tup = (1, "a", "string", 1+2)
print (tup)
print (tup[1])
```

OUTPUT:

```
/data/user/0/org.qpython.qpy3/files/bin/qpython3-
android5.sh  /storage/emulated/0/qpython/scripts3
/.last_tmp.py  && exit
thon/scripts3/.last_tmp.py  && exit            <
(1, 'a', 'string', 3)
a

#[QPython] Press enter to exit ...
```

Program 4: Python program to demonstrate working of Set in Python

```
my_set = {1, 3, 4, 5, 6}
print(my_set)
my_set.discard(4)
print(my_set)
my_set.remove(6)
print(my_set)
my_set.discard(2)
print(my_set)
```

OUTPUT:

```
/data/user/0/org.qpython.qpy3/files/bin/qpython3-
android5.sh  /storage/emulated/0/qpython/scripts3
/.last_tmp.py  && exit
thon/scripts3/.last_tmp.py  && exit            <
{1, 3, 4, 5, 6}
{1, 3, 5, 6}
{1, 3, 5}
{1, 3, 5}

#[QPython] Press enter to exit ...
```

Program 5: Python program to illustrate strings

```
str = 'programiz'
print('str = ', str)
print('str[0] = ', str[0])
print('str[-1] = ', str[-1])
print('str[1:5] = ', str[1:5])
print('str[5:-2] = ', str[5:-2])
```

OUTPUT:

```
/data/user/0/org.qpython.qpy3/files/bin/qpython3-
android5.sh  /storage/emulated/0/qpython/scripts3
/.last_tmp.py  && exit
thon/scripts3/.last_tmp.py  && exit                <
str =  programiz
str[0] =  p
str[-1] =  z
str[1:5] =  rogr
str[5:-2] =  am

#[QPython] Press enter to exit ...
```

Program 6: Python program to illustrate sequence

```
primes = [2,3,5,7,11,13,17,19,23,29]
print(primes[0])
print(primes[-1])
print(primes[-2])
primes[0] = -1
```

```
print(primes)
print(primes[4:7])
print(primes[6:])
print(primes[:-2])
```

OUTPUT:

```
/data/user/0/org.qpython.qpy3/files/bin/qpython3-
android5.sh  /storage/emulated/0/qpython/scripts3
/.last_tmp.py  && exit
thon/scripts3/.last_tmp.py  && exit            <
2
29
23
[-1, 3, 5, 7, 11, 13, 17, 19, 23, 29]
[11, 13, 17]
[17, 19, 23, 29]
[-1, 3, 5, 7, 11, 13, 17, 19]

#[QPython] Press enter to exit ...
```