

Strings in Python

```
# Assigning string to a variable
a = 'This is a string'
print (a)
b = "This is a string"
print (b)
c= '''This is a string'''
print (c)
```

```
This is a string
This is a string
This is a string
```

Lists in Python

```
# Declaring a list
L = [1, "a" , "string" , 1+2]
print (L)
#Adding an element in the list
L.append(6)
print (L)
#Deleting last element from a list
L.pop()
print (L)
#Displaying Second element of the list
print (L[1])
```

```
[1, 'a', 'string', 3]
[1, 'a', 'string', 3, 6]
[1, 'a', 'string', 3]
a
```

Tuples in Python

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

```
(1, 'a', 'string', 3)
a
```

Dictionaries in Python

A Python dictionary is a data structure that stores the value in key: value pairs. Values in a dictionary can be of any data type and can be duplicated, whereas keys can't be repeated and must be immutable.

```
d = {1: 'Lorem', 2: 'Ipsum', 3: 'Dolerum'}
print(d)

{1: 'Lorem', 2: 'Ipsum', 3: 'Dolerum'}
```

Create a Dictionary

```
# create dictionary using { }
d1 = {1: 'Game', 2: 'of', 3: 'Thrones'}
print(d1)

# create dictionary using dict() constructor
d2 = dict(a = "House", b = "of", c = "Cards")
print(d2)

{1: 'Game', 2: 'of', 3: 'Thrones'}
{'a': 'House', 'b': 'of', 'c': 'Cards'}
```

Accessing Dictionary Items

```
d = { "name": "Alice", 1: "Python", (1, 2): [1,2,4] }

# Access using key
print(d["name"])

# Access using get()
print(d.get("name"))

Alice
Alice
```

Adding and Updating Dictionary Items

```
d = {1: 'Game', 2: 'of', 3: 'Thrones'}

# Adding a new key-value pair
d["age"] = 22

# Updating an existing value
d[1] = "Python dict"

print(d)

{1: 'Python dict', 2: 'of', 3: 'Thrones', 'age': 22}
```

Deleting and Updating Dictionary Items

```
d["age"] = 22
```

```
d[1] = "Python dict"
```

```
if "age" in d:  
    del d["age"]
```

```
if 2 in d:  
    d.pop(2)
```

```
if d:  
    d.popitem()
```

```
print(d)
```

```
{1: 'Python dict'}
```