

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

Sequence Type List

- List Creation
- List Mutability
- Operations
- Slicing

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

List

- **[1,2,3, True, 'abcd']**
- **Mutable Sequence** type with elements separated by a comma.

```
l1 = []
```

```
l2 = list()
```

```
l3 = [1,2,3]
```

```
l4 = list(l3)
```

```
l5 = list('string')
```

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

List

- **Mutability**

- `l [1] = 4`

- `l.append(5)`

- `l.insert(2,33)`

- `l.extend([10 ,20])`

- `len(l)`

- **WAP** to input a sentence from user , and print one random word out of it.

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

List Functions

- **In Place** operations

- `l.sort()`

- `l.index()`

- `l.pop()`

- `l.remove()`

- Indexing:

- `l = [[10, 20], [True, False], [], 'abcd']`

- `l [0] [1]`

- `l [3] [3]`

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

Sequence Type Tupe

- Tuple Creation
- Immutability
- Operations
- Slicing

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

Tuple

(1 ,2.3 , True, 'ABCD')

- **Immutable** sequences. Represented by a **()**
- `x = ()`
`x = tuple()`
`x = (1,2,3)`
`x = 1,2,3`
`x = 1,`
`x = tuple([1,2,3])`

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

Tuple

Modifications not allowed

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

```
x[1] = 3
```

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

Copying Lists

- Simple assignments don't create copy

```
l2 = l1 # both are same
```
- Copying requires special call to **list()** or **slicing**

```
l2 = list( l1 )  
l2 = l1 [:]  
l2 = l2 [::]
```

tuteur.py@gmail.com

CONFIDENTIAL & RESTRICTED

Gaurav Gupta

Common operations on Sequences

- **len()** : returns the number of elements
- Slicing.
- Membership check

in , not in # returns Boolean **True** or **False**

- Finding minimum and maximum values:

min, max

- Concatenation and Replication

+, *

tuteur.py@gmail.com