

Copy Techniques in Python: Shallow copy and Deep Copy

In []: *# shallow copy: The initial content of both objects are same and the memory address*

```
In [1]: lst1=[10,"RS"]
        print(lst1,type(lst1),id(lst1))
```

```
[10, 'RS'] <class 'list'> 2147901750848
```

```
In [3]: lst2=lst1.copy()
        print(lst2,type(lst2),id(lst2))
```

```
[10, 'RS'] <class 'list'> 2147905818688
```

```
In [17]: lst1.append("Khan")
         lst2.insert(1,"Mahaboob")
         print(lst1,type(lst1),id(lst1))
         print(lst2,type(lst2),id(lst2))
```

```
[10, 'Mahaboob', 'RS', 'NL', 'NL', 'mahaboob', 'Khan'] <class 'list'> 2147901750848
```

```
[10, 'Mahaboob', 'RS', 'NL', 'NL', 'mahaboob', 'Khan'] <class 'list'> 2147901750848
```

In [11]: *# Deep copy: The initial content of both objects are same and the memory address of*

```
In [13]: lst2=lst1
        print(lst2,type(lst2),id(lst2))
```

```
[10, 'RS', 'NL', 'NL'] <class 'list'> 2147901750848
```

```
In [19]: lst1.append("Patan")
         print(lst1,type(lst1),id(lst1))
         print(lst2,type(lst2),id(lst2))
```

```
[10, 'Mahaboob', 'RS', 'NL', 'NL', 'mahaboob', 'Khan', 'Patan'] <class 'list'> 2147901750848
```

```
[10, 'Mahaboob', 'RS', 'NL', 'NL', 'mahaboob', 'Khan', 'Patan'] <class 'list'> 2147901750848
```

```
In [21]: lst2=lst1[:2] #slice base copy
        print(lst2,type(lst2),id(lst2))
```

```
[10, 'RS', 'NL', 'Khan'] <class 'list'> 2147929466944
```

```
In [23]: lst2=lst1[:] #slice base copy
        print(lst2,type(lst2),id(lst2))
```

```
[10, 'Mahaboob', 'RS', 'NL', 'NL', 'mahaboob', 'Khan', 'Patan'] <class 'list'> 2147929465792
```

```
In [25]: lst=[10,"khan",34.56]
        print(lst,id(lst))
```

```
[10, 'khan', 34.56] 2147929458176
```

In []: *# reverse(): The function is use for reversing the elements of the list(back elemen*

```
In [27]: lst.reverse()  
print(lst,id(lst))
```

```
[34.56, 'khan', 10] 2147929458176
```

```
In [33]: lst=lst[::-1] # reverse()  
print(lst,id(lst))
```

```
[34.56, 'khan', 10] 2147929456704
```

```
In [ ]:
```