Python Lists

Lists are used to store multiple items in a single variable.
Lists are created using square brackets
List items are ordered, changeable, and allow duplicate values
List items are indexed, the first item has index [0], the second item has index [1]etc.

Example

```
thislist = ["apple","banana","cherry"]
 print(thislist)
```

Find the length of a list

```
thislist = ["apple","banana","cherry"]
print(len(thislist))
```

Access list items in different ways

```
fruits = ["apple","banana","grapes","watermelon"]
print(fruits)
print(fruits[0])
print(fruits[0:3])
print(fruits[1:])
print(fruits[:2])

#Negative indexing
print(fruits[-4:-1])
print(fruits[-4:])
print(fruits[:-1])
```

Change list items in different ways

Method 1:

```
mylist = ["mango","orange","banana","mango"]
mylist[2] = "apple"
print(mylist)
```

Method 2:

```
mylist = ["mango","orange","banana","mango"]
mylist[1:3]=["watermelon"]
print(mylist)
```

Add list items

1.Using append( ) method

```
mylist = ["mango","orange","banana","mango"]
mylist.append("grapes")
print(mylist)
```

2.Using insert( ) method

```
mylist = ["mango","orange","banana","mango"]
mylist.insert(1,"apple")
print(mylist)
```

Remove list items

1.Using remove( ) method

```
mylist = ["mango","orange","banana","mango"]
mylist.remove("banana")
print(mylist)
```

2.Using pop( ) method

Method1

```
mylist1=["mango","orange","banana","mango"]
mylist1.pop()
print(mylist1)
```

Method2

```
mylist1=["mango","orange","banana","mango"]
mylist1.pop(1)
print(mylist1)
```

3.Using del keyword

Method1

```
mylist2 = ["mango","orange","banana","mango"]
del mylist2[2]
print(mylist2)
```

Method2

```
mylist2 = ["mango","orange","banana","mango"]
del mylist2
# Deletes full list
```

4.Using clear( ) method

```
mylist2 = ["mango","orange","banana","mango"]
mylist2.clear()
print(mylist2)
```

Sort list items

1.Ascending order

```
x = ["banana","apple","orange"]
x.sort()
print(x)
```

2.Descending order

```
x = ["banana","apple","orange"]
x.sort(reverse = True)
print(x)
```

Copy List items

```
x = ["banana","apple","orange"]
z = x.copy()
print(z)
```

Join Two Lists

Method 1 :

```
x = ["banana","apple","orange"]
y = ["grapes","watermelon","pappaya"]
z = x + y
print(z)
```

Method 2 :

```
x = ["banana","apple","orange"]
y = ["grapes","watermelon","pappaya"]

x.extend(y)
print(x)
```