Practical No. 4 Date: Aim: Implementing Lists in python.

	Date:
_Aim:	Implementing Lists in python
Theory:	List are used to store multiple items in a
	Single variable.
	List are created using square brackets.
	Create a List:
	thislist = ["apple", "banang", "cherry"]
	print (thislist)
	list items
	Tist items are ordered changeable and allow
	duplicate values.
	List items are indexed the first item has indexe
	[0] the second 14cm has index [1], etc
	Ordered
	When it says that lists are proceed it means
	that the items have a definite order, & that order
	will not change. If you add new items to a list,
	the new items will be placed at the end of the
	list.
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	Changeable
	The list is changeable, meaning that we can change

add, and remove items in a list after it
has been created.
Allow Duplicate Values.
Since lists are indexed, lists can have items with
the same value.
code :
this list = ["apple", "banand", "cherry", "apple", "cherry"] print (this list)
Time (Trit Spice)
List length:
To determine how many items a list has use a
len() function
thislist = ["apple", "banana", "cherry"]
print (len (thislist))
List Items - Data-types
List îtems can be any data types:
list_1 = ["apple", "banana", "cherry"]
list_2 = [1, 5, 7, 9, 3]
list_8 = [True, False, False, True]
A list with strings, integers & boolean values:
list-1 = ["abc", 84, True, 40, "bcd", "hexe"]
Access items:

list items are indexed & you can access them by referring to the index number: Print the second item of the list: this list = ["apple", "banana", "cherry"] print(this list [1])
Print the second item of the list: this list = ["apple", "banana", "cherry"] print (this list [1])
print(thislist [1])
Output - [banana]
Range of Indexes
You can specify a range of indexes by specify ing where to start and end the range. When
sperifying a range, the return value will be a
Return the 3rd, 4th & 5th item:
thelist = ["apple" "banana" "cherry", "orange", "kiwi", "melan", "manga"]
print (thelist [2:5])
Output > ['Che ray', brange , kiwi-]
Check if item exists:
To determine if a specified item is present in a
list use the "in" keyword. thisapple = ["apple" "banana" "cherry"]
if "cherry" in thisapple:
print ("Yes, it is in trups)

Output -> Yes, it is in fruits.
Change item Value:
To change the value of a specific item, refer to
the index number:
Change the Second number:
thislist = ["apple", "banana", "chemy"]
thislist [1] = " Peach".
print (thislist)
Output - ['apple' Peach Cherry]
Append itms:
To add an item to the end of the list use the
append() method
thislist = ["apple", "banana", "Cherry", "brange"]
thislist append ("Reach")
print (this list)
Output - Capple banana Cherry orange, Peach']
Insect items:
To insert a list items at a specified index,
use the insert () method
The insert() method inserts an item at the specifi
-ed indexe:
Insert an item as the 2nd position:
Thort an inth as the 2 position.
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	thislist = ["apple" "banana", "(herry"]
	thislist insect (1, "orange)
	print(thislist)
	Output - ['apple', orange, banana, cherry']
	Remove specified item:
	The remove () method removes the specified Hem:
	thislist = ["apple", "banana", "cherry"]
	thislist remove ("banana")
	print (thislist)
	Output : ["apple", "Chemy"]
	Sort list Alphanumenically:
	list objects have a sort method that will
	thislist = ["brange", "mungo", "kiwi" pineapple",
	banana 1
	thistist/sort () = E SHINE
	print(thislist)
	Output - I'banana', kiwi mango, brange, pineapple]
	Sort the list numerically:
	Sort the list numerically: this list = [100, 50, 65, 82, 23]
A Second	thislist.sort()
" - 100	print (this list).
	Output> [23 50 65 82 100]
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Copy a list:	
You cannot copy a list simply by typing list	2
= list 1 because : list 2 will be only a r	
to list 1, & Changes made in list 1 will	
automatically also be made in list 2	
Make a copy of a list with the copy ()
method:	
thismethodlist = ["apple", "banana", "cherry"]	
mylist = thismethodlist.copy()	
mint (mylist)	
Output + ['apple', banana', cherry']	
Samuel Control of the	
Join two lists:	
There are several mays to join or concation	مله
two or more lists in python. One of the	idic,
rasiest mays are by using the "+" open	ndma
Casing Sire it offi	ujoj
list 1 = ["q" = "6" , "c"] = HINF	
list2 = [1,2,3]	
list 3 = list1 + list 2	
print (list3)	
Output - ['a' b' c' 1'2' '3']	
Result: 80, we studied the implementation of lists	s &
operations on lists using python.	
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