**Multiple AlterNet**

**https://github.com/ibraheem-02/Python_Programs/blob/main/Control_Structures.ipynb**

Input 3 numbers from user and print largest number on screen using else if statement.

```
n1 = int(input("Enter 1st no: "))
n2 = int(input("Enter 2nd no: "))
n3 = int(input("Enter 3rd no: "))

if n1 > n2 and n1 > n3:
    print("1st no is largest")
elif n2 > n1 and n2 > n3:
    print("2nd no is largest")
else:
    print("3rd no is largest")
```

Input 3 numbers from user and print largest number on screen using Nested if statement.

```
n1 = int(input("Enter 1st no: "))
n2 = int(input("Enter 2nd no: "))
n3 = int(input("Enter 3rd no: "))
if n1 > n2:
    if n1 > n3:
        print("1st no is largest")
    else:
        print("3rd no is largest")
else:
    if n2 > n3:
        print("2nd no is largest")
```

**List:** A list is a data structure in Python that is a mutable, or changeable, ordered sequence of elements**.** Lists are created using square brackets. Stores different type of data type at a time.
**Example:**
list = [ “Ali” , 20 , 9.75 ]

List Items: 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.
When we say that lists are ordered, it means that the items have a defined order, and that order will not change.
If we add new items to a list, the new items will be placed at the end of the list.

***Pre-define operations in list***

**list. sort ()** =>Sort the list in Ascending order.
**list. sort (reverse = True)** =>Sort the list in descending order.
**list. reverse ()** =>Reverse the list items
**list. append (value)** =>To add an item to the end of the list.
**list. insert (index, value) =>**To insert a list item at a specified index . insert() method inserts an item at the specified index.
**list. remove()** =>removes the specified item. If there are more than one item with the specified value, the remove() method removes the first occurrence.
**list. pop()** => pop() method removes the specified index. If you do not specify the index, the pop() method removes the last item.

https://github.com/ibraheem-02/Python_Programs/blob/main/List.ipynb

## Creating list

```
student = [ "M Ibrahim" , 94 , 3.5]
print(student)
print(type(student))

marks = [94.3 ,27.01,11.5, 25.76, 97.8]
print("list of marks is: ",marks)
print("lenth of list is: ",len(marks))
# print marks throug index
print(marks[0])
print(marks[4])
```

## pre-define operations or methods of list.

```
list = [3,2,6,1]
print("list before operations",list)

#add elemnet to list
list.append(15)
print(list)

# inserting value on particular index
list.insert(0,1)
print(list)

# sort the list
list.sort()
print("Sort list in Acending order: ",list)
# sort in decending order
list.sort(reverse= True)
print("List sorted in decending order: ",list)

#Reverse the list items
list.reverse()
```

```
print("Reverse of List items: ",list)

# remove first accurence of element
list.remove(1)
print("Removed 1st element of list:",list)

# pop remove element at index
list.pop(2)
print("pop element at index 2:",list)

# sorting in chracters/string
list1= ["Ibraheem","Ali","Rehman"]
# sort the list
list1.sort()
print("Sort list in Acending order: ",list1)

# sort in decending order
list1.sort(reverse= True)
print("List sorted in decending order: ",list1)
```

check the list is palindrome or not hint[using list slicing].

```
List = [1, 2, 3, 2, 1 ]
List =  List [ -5:] #negative slicing
if List == List:
    print("List is Palindrome")
else:
    print("List is not Palindrome")
```

check the list is palindrome or not hint[using copy method].

```
List = [1, 2, 3, 2, 1]
List1 = List.copy()
List1.reverse()
if List == List1:
    print("List is Palindrome")
else:
    print("List is not Palindrome")
```