1.   Write a program in Python to accept scores of N players from the user, store them in a list, find and display
● Minimum score from the list.
● Maximum score from the list.
● Average of scores from the list.
Note: No in-built methods (like min, max, sum) to be used in the program.

Solution:

```
# ----------------------------------------------------------------#
# List-Program No          : L4-01
# Developed By         : Shesh Shiromani
# Date                 : 29th November 2024
# ----------------------------------------------------------------#

l = []
s=0
N = int(input("Enter: "))
for i in range(N):
    x = int(input("Enter n:"))
    l.append(x)
print(l)


a = l[0]
b = l[0]

for i in range(len(l)):
    s+=l[i]
    if l[i]>a:
        a = l[i]
    if l[i]<b:
        b = l[i]
print("max: ", a)
print("min: ", b)
print("avg: ", s/N)
```

2.   Write a program in Python to accept names of N students from the user, store them in a list, and arrange the content of the list of names in ascending order. Display the content of the sorted list in two lines (The names starting with alphabets A to M in the first line and the names starting with N to Z in the second line)

Solution:

```
# ------------------------------------------------------------------#
# List-Program No            : L4-02
# Developed By        : Shesh Shiromani
# Date                : 29th November 2024
# ------------------------------------------------------------------#

l = []
n = int(input('Enter the number for name you want: '))
for i in range(n):
    x = input("Enter: ")
    l.append(x)

g,gt = [],[]

l.sort()
for i in l:
    if i[0].upper() >= 'A' and i[0].upper() <= 'M':
        g.append(i)
    else:
        gt.append(i)

print(g)
print(gt)
```

3.   Write a program in Python to accept names of N cities from the user, store them in a list, and arrange the content of the list of city names in ascending order according to lengths. Display the content of of the sorted list in two lines (The names having length less than 7 characters in the first line and the city name(s) with maximum number of characters in the second line)

Solution:

```
# ------------------------------------------------------------------#
# List-Program No            : L4-03
# Developed By          : Shesh Shiromani
# Date                  : 29th November 2024
# ------------------------------------------------------------------#

n = int(input('Enter a number: '))
l = []
for i in range(n):
    x = input("Enter the cities: ")
    l.append(x)
l.sort(key = len)
print(l)

f = []
for i in l:
    f.append(len(i))
print(f)
M = max(f)
g = []
gt = []

for i in l:
    if len(i)<7:
        g.append(i)
    if len(i) == M:
        gt.append(i)
print(g)
print(gt)
```

4.   Write a program in Python to accept marks (out of 100) of N students from the user, store them in a list, raise marks by 5% for those which are less than 80.
Also, find and display
● Average of marks from modified content of list
● Count of marks below 50%
● Count of marks between 70 and 90 (inclusive of 70 and 90)

Solution:

```
# ---------------------------------------------------------------#
# List-Program No          : L4-04
# Developed By        : Shesh Shiromani
# Date                : 29th November 2024
# ---------------------------------------------------------------#
n = int(input("Enter:"))
l  = []
for i in range(n):
    x = int(input("Enter marks: "))
    l.append(x)

for i in range(len(l)):
    if l[i] < 80:
        l[i] *= 1.05
print(l)
ca,cb = 0,0

for i in l:
    if i<50:
        ca+=1
    elif i>=70 and i<=90:
        cb+=1
print("avg",  sum(l)/n)
print("70-90: ", cb)
print("Less than 50: ", ca)
```

5. Write a program in Python to accept the number of family members of 5 families from the user, store them in a list, and represent the content of the list as a bar chart using *.
Example:

Enter the number of family members in each of 5 families:

5	`*****`
	`******`
	`******`
	`***`

`****`

Solution:

```
# ----------------------------------------------------------------#
# List-Program No          : L4-05
# Developed By             : Shesh Shiromani
# Date                     : 29th November 2024
# ----------------------------------------------------------------#

l = []

for i in range(5):
    x = int(input("Enter members: "))
    l.append(x)

for i in l:
    print(i,'|', '*'*i)
print()
```

6.   Write a program in Python to accept the number of 8 integer values from the user, store them in a list P. Swap each adjacent pair of values in the list P and display the updated content of it.

Sample Example:
```
     Enter 8 integer Values:
45 78 34 23 56 87 43 65
Original Content of P:
[45, 78, 34, 23, 56, 87, 43, 65]
Content after swapping of pairs:
[78, 45, 23, 34, 87, 56, 65, 43]
```

Solution:

```
# ------------------------------------------------------------#
# List-Program No            : L4-06
# Developed By         : Shesh Shiromani
# Date                 : 29th November 2024
# ------------------------------------------------------------#

l = []

for i in range(8):
    x = int(input("Enter numbers: "))
    l.append(x)

print(l)
for i in range(0,len(l)-1,2):
    l[i],l[i+1],= l[i+1], l[i]

print(l)
```

7.   Write a program in Python
  ● To accept names of 6 animals, store them in a list AML & to display the content of the list
  ● To re-arrange the content of AML by re-positioning the first half of the list with second half without altering the sequence
  ● To display the modified content of AML

Pony
Ape
Eagle
Lion
Donkey
Dog
Original content   ->['Pony','Ape','Eagle','Lion','Donkey','Dog']
Re-arranged content ->['Lion','Donkey','Dog','Pony','Ape','Eagle']

Solution:

```
# ---------------------------------------------------------------#
# List-Program No              : L4-07
# Developed By          : Shesh Shiromani
# Date                  : 29th November 2024
# ---------------------------------------------------------------#


aml = []

for i in range(6):
    x = input("Enter: ")
    aml.append(x)

print(aml)
mid = len(aml)//2
a = aml[mid:] + aml[:mid]
print(a)
```

8.   Write a program in Python to accept the number of n number of values from the user, store them in a list VAL. Perform the following operations:
- In the list VAL, shift the first element to the last and step down each element from 1st element onwards.
- Display the updated content of VAL
- Reverse the content of VAL and display the same.
- In the list VAL, shift the last element to the first and step up each element from 0th element onwards.
- Display the updated content of VAL

Sample Example:
Enter N: 5
45 78 34 23 56
Original Content VAL : [45, 78, 34, 23, 56]
Step Down VAL : [78, 34, 23, 56, 45]
Reversed VAL : [45, 56, 23, 34, 78]
Step Up VAL : [78, 45, 56, 23, 34]

Solution:

```
# ----------------------------------------------------------------#
# List-Program No          : L4-08
# Developed By         : Shesh Shiromani
# Date                 : 29th November 2024
# ----------------------------------------------------------------#

l = []
n = int(input("Enter:"))
for i in range(n):
    x = int(input("Enter the no.s: "))
    l.append(x)
print(l)


st = l[1:]+l[:1]
print(st)
st.reverse()
print(st)
su = st[-1:] +st[:-1]
print(su)
```