**Practical No:-** 6

**Title:** Write Python program to perform operations on LISTS.

**Roll No.:**15 **Batch-** A **Date of Performance:** 25/01/2024

**Exercise-**



>>> l1=[3,60,35,9,85]

>>> print("Sum of list items=",sum(l1))

**Sum of list items= 192**



l1=[3,60,35,9,85]

mul=1

for i in l1:

mul=mul\*i

print("Multiplication of list items =",mul)

**Multiplication of list items = 4819500**



>>> print("Largest Number from list =",max(l1))

**Largest Number from list = 85**



>>> print("Smallest Number from list =",min(l1))

**Smallest Number from list = 3**



>>> l1.reverse()

>>> print("Reverse a list =",l1)

**Reverse a list = [85, 9, 35, 60, 3]**



>>> l1=[3,60,35,9,85]

>>> l2=[3,67,35,9,46,85]

>>> print("Common Elements=",set(l1)&set(l2))

**Common Elements= {3, 9, 35, 85}**



l2=[3,67,35,9,46,85]

for i in l2:

if i%2==0:

print("Even Elements=",i)

**Even Elements= 46**



lst=[]

cnt=int(input("Enter how many Elements u want to insert:"))

for i in range(cnt):

num=input(f"Enter {i} item:")

lst.append(num)

print(lst)

**Enter how many Elements u want to insert:4**

**Enter 0 item:32**

**Enter 1 item:HI**

**Enter 2 item:Python**

**Enter 3 item:90**

**['32', 'HI', 'Python', '90']**

* **Operations Of List-**

1. **Creating List**

>>> l1=['Java','Python','Perl']

>>> l2=[10,20,30,50,40]

1. **Accessing List**

>>> l2

[10, 20, 30, 50, 40]

>>> l2[3]

50

>>> l2[2:4]

[30, 50]

1. **Updating List**
2. append()

>>> l1.append('C++')

>>> l1

['Java', 'Python', 'Perl', 'C++']

1. extend()

>>> l3=['HTML','CSS','JS']

>>> l1.extend(l3)

>>> l1

['Java', 'Python', 'Perl', 'C++', 'HTML', 'CSS', 'JS']

1. insert()

>>> l3.insert(1,'PHP')

>>> l3

['HTML', 'PHP', 'CSS', 'JS']

1. + operator (Concatenation)

>>> l3+l1

['HTML', 'PHP', 'CSS', 'JS', 'Java', 'Python', 'Perl', 'C++', 'HTML', 'CSS', 'JS']

1. \* operator (Repetation)

>>> l2\*2

[10, 20, 30, 50, 40, 10, 20, 30, 50, 40]

1. **Deleting List:**
2. remove()

>>> l1.remove('C++')

>>> l1

['Java', 'Python', 'Perl', 'HTML', 'CSS', 'JS']

1. pop()

>>> l1.pop()

'JS'

>>> l1.pop(2)

'Perl'

1. del operator

>>> del l2[5]

>>> l2

[10, 20, 30, 40, 50, 30]

1. **List Methods-**
2. sort()

>>> l2.sort()

>>> l2

[10, 20, 30, 40, 50]

1. count()

>>> l2.count(30)

3

1. index()

>>> l2.index(40)

3

1. clear()

>>> l3.clear()

>>> l3

[]

1. copy()

>>> a=[1,2,3]

>>> new=a.copy()

>>> new

[1, 2, 3]

1. **List Functions-**
2. len()

>>> len(l1)

4

1. any()

>>> any(l3)

True

1. all()

>>> all(l3)

False

1. list()

>>> t1

(43, 32, 22)

>>> list(t1)

[43, 32, 22]

1. sorted()

>>> sorted(l3)

[0, 10, 39, 64, 92]