In [1]:
```
# write a program to get a user input in the form of a list data type.Return a list by removing all the duplicates

lst = []

n = int(input("Enter number of elements : "))

for i in range(0, n):
    ele = int(input())

    lst.append(ele)

print(lst)

temp = []

for x in lst:
    if x not in temp:
        temp.append(x)

lst = temp

print(f'Updated List after removing duplicates = {temp}')
```

```
Enter number of elements : 6
5
2
5
6
2
8
[5, 2, 5, 6, 2, 8]
Updated List after removing duplicates = [5, 2, 6, 8]
```

In [2]:
```
# write a program to create a user defined tuple with 'int' data type and perform the following operations

# find the length of tuples
# find the sum of all the elements of a tuple
# find the largest and smallest elements of a tuple

lst = []

n = int(input("Enter number of elements : "))

for i in range(0, n):
    ele = int(input())

    lst.append(ele)

print(lst)

lst = tuple(lst)

print(lst)

print(len(lst))

print(sum(lst))

print(min(lst))

print(max(lst))
```

```
Enter number of elements : 6
3
5
2
6
4
1
[3, 5, 2, 6, 4, 1]
(3, 5, 2, 6, 4, 1)
6
21
1
6
```

In [8]:
```
# given a number and ith bit,change th ith of that number to 1

n=13
k=1
if ((1 << k) | n):
    print("Kth bit set number = ", setKthBit(n, k))
```

```
Kth bit set number =  15
```

In [9]:
```
# given a number ,print 1 if the number is odd otherwise print 0

a = [0, 1]
print ("Enter the number")
no = input()
print (a[int(no) % 2])
```

```
Enter the number
9
1
```

In [10]:
```
# given two lists of integer A and B. Write a program to merge them into a single sorted list that contains every item from list A and B in ascending order

A=[4,5,3,7,8]
B=[6,9,2,10,1]
A.extend(B)
A.sort()
print((A))
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

In [28]:
```
# create a user defined dictionary to store names and marks of 5 students .Sort the dictionary according to marks and return this sorted dictionary to the user

a={}
n=int(input("Number of Elements:"))

for i in range(n):
    k=input("Enter name:")
    v=input("Enter marks:")
    a.update({k:v})

print(a)
print(sorted(a.items(), key = lambda kv:(kv[1], kv[0])))
```

```
Number of Elements:5
Enter name:ram
Enter marks:20
Enter name:shyam
Enter marks:60
Enter name:tina
Enter marks:44
Enter name:rajat
Enter marks:52
Enter name:naman
Enter marks:36
{'ram': '20', 'shyam': '60', 'tina': '44', 'rajat': '52', 'naman': '36'}
[('ram', '20'), ('naman', '36'), ('tina', '44'), ('rajat', '52'), ('shyam', '60')]
```