1. **Write a program using zip() function and list() function, create a merged list of tuples from the two lists given.**

In [23]:

```
a=("apple","ball","cat")
b=("dog","eye","flag")
```

In [24]:

```
c=zip(a,b)
print(c)
```

```
<zip object at 0x7f4a912d8410>
```

In [25]:

```
list(c)
```

Out[25]:

```
[('apple', 'dog'), ('ball', 'eye'), ('cat', 'flag')]
```

1. **First create a range from 1 to 8. Then using zip, merge the given list and the range together to create a new list of tuples.**

In [27]:

```
a=range(1,9)
b=[10,20,30,40,50,60,70,80]
```

In [28]:

```
c=zip(a,b)
```

In [29]:

```
tuple(c)
```

Out[29]:

```
((1, 10), (2, 20), (3, 30), (4, 40), (5, 50), (6, 60), (7, 70), (8, 80))
```

1. **Using sorted() function, sort the list in ascending order.**

In [33]:

```
a=[10,30,70,80,50,40,20,60]
a
```

Out[33]:

```
[10, 30, 70, 80, 50, 40, 20, 60]
```

In [34]:

```
a=sorted(a)
print(a)
```

```
[10, 20, 30, 40, 50, 60, 70, 80]
```

1. **Write a program using filter function, filter the even numbers so that only odd numbers are passed to the new list.**

In [35]:

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

In [42]:

```
def even(x):
  if x%2==0:
    return True
  else:
    return False
```

In [43]:

```
even_number=list(filter(even,a))
print(even_number)
```

```
[2, 4, 6, 8]
```

In [45]:

```
odd_number=[]
for i in a:
  if i not in even_number:
    odd_number.append(i)
print(odd_number)
```

```
[1, 3, 5, 7, 9]
```

Another Method without using filter function

In [36]:

```
b=[]
```

In [39]:

```
for i in a:

  if i%2!=0:
   b.append(i)
```

In [40]:

```
b
```

Out[40]:

```
[1, 3, 5, 7, 9]
```