Day 21 – Map,Filter,zip,reduce

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

In [10]:

```
list1 = [1, 2, 3]
list2 = ['a', 'b', 'c']
def listOfTuples(l1, l2):
    return list(map(lambda x, y:(x,y), l1, l2))
print(merge(list1, list2))
```

```
[(1, 'a'), (2, 'b'), (3, 'c')]
```

In [12]:

```
def merge(list1, list2):

    merged_list = tuple(zip(list1, list2))
    return merged_list


list1 = [1, 2, 3]
list2 = ['a', 'b', 'c']
print(merge(list1, list2))
```

```
((1, 'a'), (2, 'b'), (3, 'c'))
```

2. 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 [5]:

```
l1=[1,2,3,4,5,6,7,8]
l2=['a','b','c','d','e','f','g','h']
result =tuple(zip(l1,l2))
print(result)
```

```
((1, 'a'), (2, 'b'), (3, 'c'), (4, 'd'), (5, 'e'), (6, 'f'), (7, 'g'), (8,
'h'))
```

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

In [6]:

```
l1=[23,45,54,32,78,88,22]
l2=sorted(l1)
print(l2)
```

```
[22, 23, 32, 45, 54, 78, 88]
```

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

In [7]:

```
numbers = [1,2,6,7,13,14,12,17,16,53,67,34,75,48]
def even_numbers(num):
    if(num%2 == 0):
        return True
    else:
        return False

evenNums = filter(even_numbers, numbers)
print('Even Numbers are:')
for num in evenNums:
    print(num)
```

```
Even Numbers are:
2
6
14
12
16
34
48
```

In [ ]:

```

```