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

list1 = [1,4,7,10,23]
list2 = [2,5,8,11,24]
print("list 1 : ",list1)
print("list 2 : ",list2)
x = zip(list1,list2)
print("mearge list : ",list(x))
```

Output : -

```
list 1 :  [1, 4, 7, 10, 23]

list 2 :  [2, 5, 8, 11, 24]

mearge list :  [(1, 2), (4, 5), (7, 8), (10, 11), (23, 24)]
```

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# 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.

list1 = [*range(1,8)]
print(list1)
list2 = [*range(8,1,-1)]
print(list2)
list3 = zip(list1,list2)
print(list(list3))
```

Output : -

```
[1, 2, 3, 4, 5, 6, 7]

[8, 7, 6, 5, 4, 3, 2]

[(1, 8), (2, 7), (3, 6), (4, 5), (5, 4), (6, 3), (7, 2)]
```

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

list1 = [5,4,84,96,41,77,46,54,38,15,27]
print(sorted(list1))
```

Output : -

```
[4, 5, 15, 27, 38, 41, 46, 54, 77, 84, 96]
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```python
# 4. Write a program using filter function, filter the even numbers so that
   only odd numbers are passed to the new list.

num = [5,12,26,34,48,53,69,71,83,99]

def filterOddNum(in_num):

    if(in_num % 2) !=0:
        return True
    else:
        return False

out_filter = filter(filterOddNum, num)
print("Odd Numbers are: ", list(out_filter))


def EvenNo(in_num):

    if (in_num % 2) == 0:
        return True
    else:
        return False

to_filter = filter(EvenNo, num)
print("even numbers are: ",sorted(list(to_filter)))
```

Output : -

```
Odd Numbers are:  [5, 53, 69, 71, 83, 99]

even numbers are:  [12, 26, 34, 48]
```