ASSIGNMENT 4

Q1.

1.Write a function that takes a list of words and an integer n and returns the list of words that are longer than n.

```
#Q1
def myfunction(n,listofwords):
  words=[]
  for x in listofwords:
    if (len(x) > n):
      words.append(x)
  return words
myfunction(1,["Ishika","Khokhani","Nancy","Drew","Ben","Stokes"])
```

```
['Ishika', 'Khokhani', 'Nancy', 'Drew', 'Ben', 'Stokes']
```

Q2.

2.Write a Python program using function that maps list of words into a list of integers representing the lengths of the corresponding words.

```
#Q2
def MapWordToInt(x):
    wordLen=[]
    for y in x:
     z=len(y)
     wordLen.append(z)
    return wordLen,x
x,y=MapWordToInt(["Ishika","Khokhani","Nancy","Drew","Ben","Stokes"])
print(y,x)
```

```
['Ishika', 'Khokhani', 'Nancy', 'Drew', 'Ben', 'Stokes'] [6, 8, 5, 4, 3, 6]
```

Q3.

3.Write a Python Program to implement your own my_reduce() function which works exactly like Python's built-in function reduce(). Test it for a.addition of elements from an iterable. b.subtraction of elements from an iterable.

```
[ ] #Q3-a
    def my_reduce(listOfInt):
        sum=0
        for x in listOfInt:
          sum=sum+x
        return sum
    my_reduce([1,2,3,4,5,6,7])
```

```
28
```

```
[ ] #Q3-b
    def my_reduce(listOfInt):
        total=listOfInt[0]
        for x in range(1,len(listOfInt)):
          total=total-listOfInt[x]
        return total
    my_reduce([20,4,5,8,9,6,1,5,9])
```

```
-27
```

Q4.

4.Write a python program with a function which takes string from user and outputs a dictionary containing vowel as key and its count as value respectively

```
#Q4
def my_func():
  str1=input("Enter a string:")
  str1=str1.lower()
  print(str1)
  mydict={
      "a":str1.count("a"),
      "e":str1.count("e"),
      "i":str1.count("i"),
      "o":str1.count("o"),
      "u":str1.count("u")
  }
  return mydict
my_func()
```

```
Enter a string:Ishika
ishika
{'a': 1, 'e': 0, 'i': 2, 'o': 0, 'u': 0}
```

Q5.

5.Write a Python Program to implement your own my_filter() function which works exactly like Python's built-in function filter(). Test it for a.filtering only even numbers from an iterableb.filtering numbers that are divisible by 3 from an iterable

```
[ ] #Q5-a
    def my_filter(z):
      EvenNum=[]
      for x in z:
        if(x%2==0):
          EvenNum.append(x)
      return EvenNum
    print("Even numbers are:",my_filter([2,74,4,5,8,4,44,88,86]))
```

```
Even numbers are: [2, 74, 4, 8, 4, 44, 88, 86]
```

```
[ ] #Q5-b
    def my_filter(z):
      MulOf3=[]
      for x in z:
        if(x%3==0):
          MulOf3.append(x)
      return MulOf3
    print("Multiple of 3 are:",my_filter([1+2,9,27,44,88,15]))
```

```
Multiple of 3 are: [3, 9, 27, 15]
```