Day 6:

Input :from 10 to 12

51. How to select the integers from string

```
str1=input("enter string:")
lenstr=len(str1)
mynum=[]
x=0
while x<lenstr:
    num=" "
    symbol=str1[x]
    while '0'<=symbol<='9':
        num=num+symbol
        x=x+1
        if x<lenstr:
            symbol=str1[x]
        else:
            break
    x=x+1   #line 15
    if num!=" ":
        mynum.append(int(num))
print(mynum)
```

S1: from 1 0 t o 1 2

```
   0123456789101112(index)
```

lenstr=13

x=1

while 0<13:

symbol=str1[0]=f

while ‘0’<=’f’<=’9’:

false go to line 15

S2: x=1

while 1<13:

symbol=str1[1]=r

while loop false

go to line 15

similiarly for the o, m also

S3:when index is at 5

x is also 5

while 5<13:

symbol=str1[5]=1

while ‘0’<=’1’<=’9’:

num=” “ +”1”

x=5+1=6

S4:x=6

while 6<13:

symbol=0

‘0’<=’0’<=’9’:

num=’1’+’0’=10

Similiarly remaining steps..

52. How to sort words according to their length

```
str1=input("enter word:")
first=str1.split()
lenstr=len(first)
for i in range(lenstr-1):
    for j in range(lenstr-1-i):
        if len(first[j])>len(first[j+1]):
            first[j],first[j+1]=first[j+1],first[j]
print(" ".join(first))
```

str1=Good bye to you

```
first= ['Good', 'bye', 'to', 'you']
```

lenstr=4

for i in range(4-1):

for j in range(4-1-0):

if (first[0]>first[1]):

swap the words….

finally prints the words….

53. How to find the longest word in string

```
str1=input("enter string:")
first=str1.split()
lenstr=len(first)
long=0
for i in range(1,lenstr):
   if len(first[long])<len(first[i]):
      long=1
print(first[long])
```

str1=hello manjunath garu

observe the previous problem

```
lenstr=3
long=0
for i in range(1,3):
 if first[0]<first[1]: #length of string
  long=1
  suppose len("hello")<len("manjunath")
   true print manjunath
```

54.How to get the percentage of uppercase and lowercase

```
str1=input("enter string:")
lenstr1=len(str1)
lower=upper=0
for i in str1:
   if 'a'<=i<='z':
      lower=lower+1
   elif 'A'<=i<='Z':
      upper=upper+1
print("Lower percentage:%.2f"%((lower/lenstr1)*100))
print("Upper percentage:%.2f"%((upper/lenstr1)*100))
```

Str1=Hello World TODAY

```
lenstr1=17
for i in Hello…
if loop satisfies the lower and upper case characters and then
 increments the lower and upper value..
 FINALLY WE THE LOWER AND UPPER VALUE PERCENTAGE
```

65. How to check if the given string is palindrome or not

```
str1=input("enter string:")
lenstr1=len(str1)
for i in range(lenstr1//2):
   if str1[i]!=str1[-1-i]:
      print("this is not palindrome")
      break
else:
   print("This is palindrome ")
```

```
 str1=abcdcba
len=7
for i in range(7//2):
 if str1[0]!=str1[-1-0]:
S2:for i in range(3):
if str1[1]!=str1[-1-1]:
S3: for i in range(3):
if str1[2]!=str1[-3]: # True finally it is satisfies all values so print
   palindrome
```

58.How to generate the random numbers using array¶

```
from random import randint                # We insert the random library to write the random numbers
x=10                                      x=10
y=[]                                      # Initialise the y as empty list
for i in range(x):                        for i in range(10):
    y.append(randint(1,100))              loop iterates then return the 10 random numbers..


for i in y:                               for i in y:
    print(i,end=" ")                      print the random numbers with whitespaces like 1 2 with list
print()
print("Minimum value is ",min(y))          # min(all the random numbers)=get the smallest number
```

60. How to get the positive numbers out of negative numbers

```
import random
x=[]
for i in range(10):
    x.append(int(random.random()*10)-6)   this line gives the randomly 10 nbrs with is less than 4
print(x,end=" ")                              [3, -6, -1, 2, -2, -6, 3, 0, -2, -2]
print()
neg=[]                                    Intialize the neg empty list
pos=[]                                    Intialize the pos empty list
for i in x:                                for i in x:
    if i<0:                               if i is less than 0:
        neg.append(i)                     negative values will print
        neg.sort()                        then make it sort
    elif i>=0:                             if i is greater than or equal to 0:
        pos.append(i)                     positive values will print
        pos.sort()                        then make it sorted order
print("Negative numbers:",neg)            Finally we the values of negative and positive numbers
print("Positive numbers:",pos)
```