Output:

4.Count the special characters, alphabets, digits, lowercase and uppercase characters.

```
#4.Count the special characters, alphabets, digits, lowercase and uppercase characters.
def count_chars(str):
  upper,lower,special_char,digit=0,0,0,0
  for i in range (len(str)):
    if str[i]>='A' and str[i]<='Z':
      upper=upper+1
    elif str[i]>='a' and str[i]<='z':
      lower=lower+1
    elif str[i]>='0' and str[i]<='9':
      digit=digit+1
    elif str[i]!=' ':
      special_char=special_char+1
  print("Upper Case chars : ",upper)
  print("Lower Case chars : ",lower)
  print("Special chars : ",special_char)
  print("Digits : ",digit)
  print("Alphabets : ",upper+lower)
str=input()
count_chars(str)
```

```
Sathyabama 2019 @
Upper Case chars :  1
Lower Case chars :  9
Special chars :  1
Digits :  4
Alphabets :  10
```

5. For given Input String (s) and Width (w). Wrap the string into a paragraph of width w.

```
#5. For given Input String (s) and Width (w). Wrap the string into a paragraph of width w.
import textwrap
s=input("Input a string: ")
w = int(input("Input the width of the paragraph: ").strip())
print("Result: ")
print(textwrap.fill(s,w))
```

```
Input a string: sathyabama
Input the width of the paragraph: 3
Result:
sat
hya
bam
a
```

6. Print of the String "Welcome".Matrix size must be N X M. (N is an odd natural number, and M is 3 times N).

```
#6 Print of the String "Welcome". Matrix size must be N X M. ( N is an odd natural number, and
#M is 3 times N.).
a=input('Enter the string:')
n, m = map(int,input("value of n m:").split())
pattern = [('|,.'*(2*i + 1)).center(m, '-') for i in range(n//2)]
print('\n'.join(pattern + [a.center(m, '-')] + pattern[::-1]))
```

```
Enter the string:Welcome
value of n m:10 20
--------|,.---------
-----|,.|,.|,.------
--|,.|,.|,.|,.|,.---
|,.|,.|,.|,.|,.|,.|,.
|,.|,.|,.|,.|,.|,.|,.|,.
------Welcome-------
|,.|,.|,.|,.|,.|,.|,.|,.
|,.|,.|,.|,.|,.|,.|,.
--|,.|,.|,.|,.|,.---
-----|,.|,.|,.------
--------|,.---------
```