1.

```
s = input("Enter a String:\n")
v_c = 0        #vowel counter
c_c = 0        #consonant counter
u_c = 0        #uppercase characters counter
l_c = 0        #lowercase characters counter
d_c = 0        #digit counter
space_c = 0    #space counter
s_c = 0        #special character counter
for i in s:
   if i.isalpha():               #checks for alphabet
      if i in "aeiouAEIOU":      #checks for vowels
         v_c += 1
      else:                      #if not vowel then consonant
         c_c += 1

      if i.isupper():            #checks for uppercase characters
         u_c += 1
      else:                      #if not uppercase then it is lowercase
         l_c += 1
   elif i.isdigit():             #if not alphabet then checks for digit
      d_c += 1
   else:                         #if not alphanumeric then enters this block
      if i == " ":
         space_c += 1            #checks for spaces
      else:
         s_c += 1                #checks for special characters
print("No. of Vowels : ",v_c)
print("No. of Consonants : ",c_c)
print("No. of Uppercase Characters : ",u_c)
print("No. of Lowercase Characters : ",l_c)
print("No. of Digit : ",d_c)
print("No. of Spaces : ",space_c)
print("No. of Special Characters : ",s_c)
```

2.

```
s = input("Enter a String:\n")

rev = ""        #empty string...will store the reversed sting eventually
for i in range(len(s)-1,-1,-1):
   if s[i] != " ":
      rev = rev + s[i]
   else:
      rev = rev + " "
if rev == s:
   print("The given String is Palindrome")
else:
   print("The given String is not Palindrome")
```

3.

```
s = input("Enter a String:\n")
d = {}

for i in s:    #scans the string
   if i not in d:     #scans the dictionary...if not found then make the value 1
      d[i] = 1
   else:              #if found then increases the value by 1
      d[i] += 1

print(d)
```

4.

```
s = input("Enter a String:\n")
s = s.split()      #splits by keeping delimiter as a space...
d = {}
#now each word of the given string is treated as an individual element
for i in s:        #scans the string for words
   if i not in d:      #scans the dictionary...if not found then make the value 1
      d[i] = 1
   else:              #if found then increases the value by 1
      d[i] += 1

print(d)
```

5.

```
s = input("Enter a String:\n")
s = s + " "        #added a space to avoid error

rev = ""           #now empty...will eventuall store the final result
k = 0              #points to the initial index of each word
for i in range(1,len(s)):
   temp = ""       #temporarily stores each word and gets empty after each iteration
   if s[i] == " ":
      for j in range(k,i):
         temp = temp + s[j]
         k = i+1
      rev = temp +  " " + rev

print(rev)
```