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In [1]: import re
```

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In [11]: def fact(n):
          if n==1:
              return 1
          else:
              return n*fact(n-1)
n=int(input("enter the number"))
result=fact(n)
print("factorial of",n,result)
```

enter the number1
factorial of 1 1

```
In [15]: a=int(input("enter the number"))
          if a%2==0:
              print("this is number is composite number")
          else:
              print("this is prime number")
```

enter the number4
this is number is composite number

```
In [23]: s=input("enter the string")
          r=s[::-1]
          if (r==s):
              print("\n")
              print("the given string is palindrome")
          else:
              print("the given sting is not palindrome")
```

enter the stringpeep

the given string is palindrome

```
In [25]: string="the datascience is too hard"
          for i in string:
              frequency=string.count(i)
              print(str(i)+":"+str(frequency),end=" ,")
              print("the output is",string)
```

t:3 ,the output is the datascience is too hard
h:2 ,the output is the datascience is too hard
e:3 ,the output is the datascience is too hard
 :4 ,the output is the datascience is too hard
d:2 ,the output is the datascience is too hard
a:3 ,the output is the datascience is too hard
t:3 ,the output is the datascience is too hard
a:3 ,the output is the datascience is too hard
s:2 ,the output is the datascience is too hard
c:2 ,the output is the datascience is too hard
i:2 ,the output is the datascience is too hard
e:3 ,the output is the datascience is too hard
n:1 ,the output is the datascience is too hard
c:2 ,the output is the datascience is too hard
e:3 ,the output is the datascience is too hard
 :4 ,the output is the datascience is too hard
i:2 ,the output is the datascience is too hard
s:2 ,the output is the datascience is too hard
 :4 ,the output is the datascience is too hard
t:3 ,the output is the datascience is too hard
o:2 ,the output is the datascience is too hard
o:2 ,the output is the datascience is too hard
 :4 ,the output is the datascience is too hard
h:2 ,the output is the datascience is too hard
a:3 ,the output is the datascience is too hard
r:1 ,the output is the datascience is too hard
d:2 ,the output is the datascience is too hard

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In [ ]:
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In [ ]:
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