In [4]:
```
#Python Program to find the factorial of a number using loop.
n=int(input("Enter number:"))
fact=1
while(n>0):
    fact=fact*n
    n=n-1
print("Factorial of the number is:")
print(fact)
```

```
Enter number:4
Factorial of the number is:
24
```

In [7]:
```
#Python Program to reverse a number using loop
r=0
n=int(input("Enter a number: "))
while(n>0):
    dig=n%10
    r=r*10+dig
    n=n//10
print("The reversed no is:")
print(r)
```

```
Enter a number: 5
The reversed no is:
5
```

In [11]:
```
#Write a Python program to construct the following pattern, using a nested
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
n=5;
for i in range(n):
    for j in range(i):
        print ('*',end="")
    print('')
for i in range(n,0,-1):
    for j in range(i):
        print('*',end="")
    print('')
```

```
  File "<ipython-input-11-8cca876e19d5>", line 2
    *
     ^
SyntaxError: invalid syntax
```

In [12]:
```
#Python Program to replace all occurrences of ‘a’ with ‘$’ in a string.
string=input("Enter string:")
string=string.replace('a','$')
string=string.replace('A','$')
print("Modified string:")
print(string)
```

```
Enter string:4
Modified string:
4
```

In [13]:
```
#Python Program to remove the nth index character from a non-empty string.
def remove(string, n):
    first = string[:n]
```

```
    last = string[n+1:]
    return first + last
string=input("Enter the sring:")
n=int(input("Enter the index of the character to remove:"))
print("Modified string:")
print(remove(string, n))
```

```
Enter the sring:5
Enter the index of the character to remove:2
Modified string:
5
```

In [16]:

```
#Python Program to detect if two strings are anagrams.
s1=input("Enter first string:")
s2=input("Enter second string:")
if(sorted(s1)==sorted(s2)):
    print("The strings are anagrams.")
else:
    print("The strings aren&#39;t anagrams.")
```

```
Enter first string:7
Enter second string:5
The strings aren&#39;t anagrams.
```

In [18]:

```
#Python Program to form a string where the first character and the last cha

def change(string):
    return string[-1:] + string[1:-1] + string[:1]
string=input("Enter string:")
print("Modified string:")
print(change(string))
```

```
Enter string:4
Modified string:
44
```

In [20]:

```
#Python Program to count number of vowels from a non-empty string.
string=input("Enter string:")
vowels=0
for i in string:
    if(i=='a'or i=='e' or i=='i'or i=='o' or i=='u' or i=='A' or i=='E' or
        vowels=vowels+1
print("Number of vowels are:")
print(vowels)
```

```
Enter string:7
Number of vowels are:
0
```

In [*]:

```
#Program for Divide by zero error detection
flag = True
def div(a, b):
    try:
        print("Finally the division of %d/%d is %f" % (a, b,a/b))
        global flag
        flag=False
    except ZeroDivisionError:
        print("Zero Division Error detected")
    else:
        print("Division is successful")
    finally:
        if flag is True:
            print("Try again")
        else:
            print("Thank you")
#global flag
while flag is True:
    div(int(input("Enter numerator")),int(input("Enter denominator")))
```

```
Enter numerator6
Enter denominator0
Zero Division Error detected
Enter numerator
```

In [*]:

```
#Program for ValueError error detection
while True:
    try:
        x = int(input(&quot;Please enter a number: &quot;))
        print(&quot; That was valid number. Thank you&quot;)
        break
    except ValueError:
        print(&quot;Oops! That was no valid number. Try again...&quot;)
```

In [ ]:

```

```