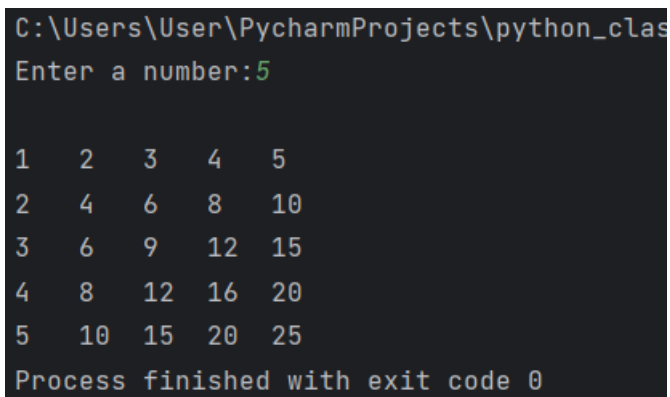


ASSIGNMENT-2

1. Multiplication table

```
n=int (input ("Enter a number:"))  
  
for n in range (1, n+1):  
    print ("")  
    for i in range (1,6):  
        res=n*i  
        print (res, end="\t")
```

OUTPUT



```
C:\Users\User\PycharmProjects\python_clas  
Enter a number:5  
  
1   2   3   4   5  
2   4   6   8  10  
3   6   9  12  15  
4   8  12  16  20  
5  10  15  20  25  
Process finished with exit code 0
```

2. Pattern Printing

```
rows = int(input('Enter the number of rows:'))  
  
space=rows  
  
for i in range(rows+1):  
    for j in range(space):  
        print(" ", end="")  
    space-=1  
    for k in range(i):  
        if i==3 and k==1:  
            print(" ", end=' ')  
        else:  
            print(i,end=" ")  
    print()
```

OUTPUT

```
C:\Users\User\PycharmProjects\python_cla
Enter the number of rows:4

  1
 2 2
3 3 3
4 4 4 4

Process finished with exit code 0
```

3. write a program that take a number as input and print its prime factor using for loop.

```
num=int(input("Enter a number: "))
print("Prime factors of",num,"are:",end=" ")
for i in range(2,num+1):
    while num%i==0:
        print(i, end=" ")
        num//=i
```

OUTPUT

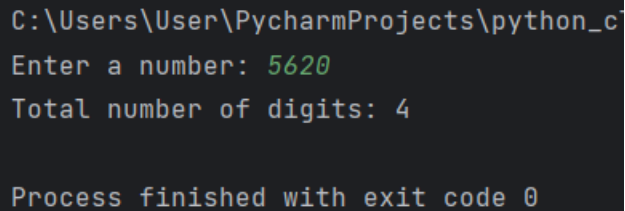
```
C:\Users\User\PycharmProjects\python_c
Enter a number: 78
Prime factors of 78 are: 2 3 13
Process finished with exit code 0
```

4. write a program to count the total number of digits in a number?

```
n=int(input("Enter a number: "))
count=0
if n==0:
    count = 1
else:
    for i in range(1, 11):
        if n==0:
            break
```

```
n//=10  
count += 1  
print("Total number of digits:" ,count)
```

OUTPUT

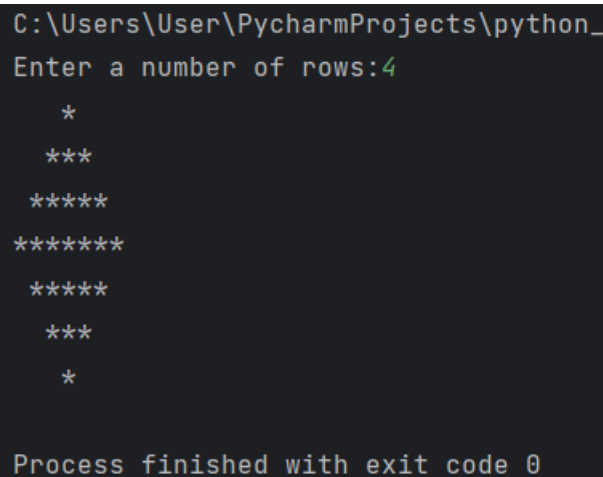


```
C:\Users\User\PycharmProjects\python_c  
Enter a number: 5620  
Total number of digits: 4  
  
Process finished with exit code 0
```

5. pattern printing using for loop?

```
n=int(input("Enter a number of rows:"))  
for i in range(n):  
    print(' '*(n-i-1)+"*"*(2*i+1))  
for j in range(n-2,-1,-1):  
    print(' '*(n-j-1)+"*"*(2*j+1))
```

OUTPUT



```
C:\Users\User\PycharmProjects\python_  
Enter a number of rows:4  
    *  
   ***  
  *****  
 *****  
  *****  
   ***  
    *  
  
Process finished with exit code 0
```

6.pattern printing using nested for loop?

```
n = int(input("Enter the number of rows: "))  
space = 1  
for i in range(n):  
    for j in range(n):
```

```
        print("*", end=" ")
    print()
for i in range(space):
    for j in range(space):
        print(" ", end=" ")
    print("*")
for i in range(n):
    for j in range(n):
        print("*", end=" ")
    print()
```

OUTPUT

```
C:\Users\User\PycharmProjects\python_clas
Enter the number of rows: 3
* * *
* * *
* * *
  *
* * *
* * *
* * *
```

Process finished with exit code 0