In [100…
```python
#while loops

a=int(input("Enter a number :"))
while (a>0):
    print("Hi", end=" ")
    a-=1
```

```
Enter a number :6
Hi Hi Hi Hi Hi Hi
```

In [101…
```python
#Break in Python

a=int(input("Enter a number :"))
for i in range(1,a):
    if(i==4):
        break
    print(i)
```

```
Enter a number :5
1
2
3
```

In [102…
```python
#continue in python

a=int(input("Enter a number :"))
for i in range(1,a):
    if(i==4):
        continue
    print(i)
```

```
Enter a number :6
1
2
3
5
```

In [106…
```python
#FIBONACCI SERIES

num=int(input("Enter a number :"))
a=0
b=1
print(b,end=" ")
for i in range(1,num):
    c=a+b
    a=b
    b=c
    print(c ,end=" ")
```

```
Enter a number :5
1 1 2 3 5
```

In [109…
```python
# FUNCTIONS IN PYTHON

#function creation
def add(a,b):
    result=a+b
    return result
def mul(a,b):
    return a*b
```

```
def welcome(a):
    print("welcome ",a)

#function calling

print(add(4,6))
print(mul(23,67))
welcome("Praveen")
```

```
10
1541
welcome  Praveen
```

In [110…

```
#LAMBDA FUNCTION IN PYTHON

#function creation
x=lambda a,b:a*b

#function calling
print(x(3,5))
```

```
15
```

In [113…

```
#RECURSION IN PYTHON

def sum(x):
    if(x==1):
        return 1

    return (x+sum(x-1))
print(sum(100))
```

```
5050
```

In [114…

```
#Factorial of a number using recursion

def fac(x):
        if (x==0):
            return 1
        return (x*fac(x-1))
num = int (input("enter a  number : "))
res = fac(num)
print ("factorial of ",num," is ",res)
```

```
enter a  number : 4
factorial of  4  is  24
```

In [117…

```
#Exception Handling in Python

try:
    a=1/0

except:
    print("error occured")
```

```
error occured
```

In [119…

```
#Exception Handling in Python

try:
  print(x)
except NameError:
  print("An exception occurred")
```

```
<function <lambda> at 0x0000025617847AF0>
```

In [121…

```python
#Exception Handling in Python

def divide(x, y):
 try:
    result = x / y
 except ZeroDivisionError:
    print("division by zero!")
 except TypeError:
    print("input data type is no valid")
 else:
    print("result is", result)
 finally:
    print("executing finally clause")
#no error
print("dividing 2 and 1:")
divide(2,1)
#zeroDivisionError
print("\ndividing 2 and 0:")
divide(2,0)
#TypeError
print("\ndividing string values")
divide("2","0")
```

```
dividing 2 and 1:
result is 2.0
executing finally clause

dividing 2 and 0:
division by zero!
executing finally clause

dividing string values
input data type is no valid
executing finally clause
```