In [ ]:

```
# variable declared outside of the function or in global scope is known as a global var
iable.
#This means that a global variable can be accessed inside or outside of the function.
x = 100
def fUNCTION1():
     x=1
     print("x inside VALUE:", x)

fUNCTION1()
print("x outside:", x)
```

```
x inside VALUE: 1
x outside: 100
```

In [ ]:

```
def fUNCTION1():
     x=1
     print("x inside VALUE:", x)

fUNCTION1()
print("x outside:", x)
```

```
x inside VALUE: 1

---------------------------------------------------------------------------
-
NameError                                 Traceback (most recent call las
t)
<ipython-input-1-8c850780b30a> in <module>()
      5
      6 fUNCTION1()
----> 7 print("x outside:", x)

NameError: name 'x' is not defined
```

In [ ]:

```
#Global Variables can be modified in functions with the keyword global
def fUNCTION1():
    global x
    x=1
    print("x inside VALUE:", x)

fUNCTION1()
print("x outside:", x)
```

```
x inside VALUE: 1
x outside: 1
```

In [ ]:

```
#factorial of a number
def fact(n):
  sum=0
  if(n==1):
    return 1
  else:
    return n*fact(n-1)

n=int(input("enter the number"))
sum=fact(n)
print("factorial of the number is ",sum)
```

```
enter the number5
factorial of the number is  120
```

In [ ]:

```
#nth finonocci number
def fib(n):
  if (n==1 or n==2):
    return 1
  else:
    return fib(n-1)+fib(n-2)
n=int(input("enter the number"))
sum=fib(n)
print("fibonocci number is ",sum)
```

```
enter the number6
fibonocci number is  8
```