RECURSIVE FUNCTIONS

- A function that calls itself.
- Every recursive function must have a **base condition** that stops the recursion or else the function calls itself infinitely.

Example:

```
def factorial(x):
    """ This is a recursive function to find the factorial of an integer"""
    if x==1:
        return 1
    else:
        return(x*factorial(x-1))


num=5
print("the factorial of ",num, "is" ,factorial(num))
```

- The python interpreter limits the depths of recursion to help avoid infinite recursions, resulting in stack overflows.
- By default, the maximum depth of recursion is 1000.
- If the limit is crossed, it results in **RecursionError**.