



BRACU_CSE - How Recursion works.py

```
1  #Example 01
2  # Write a function which recursively print numbers from 1 to n.
3  def recursiveMethod(parameter):
4      if parameter < 1:
5          print("Exit condition Satisfied. Exited.")
6      else:
7          recursiveMethod(parameter-1)
8          print(parameter)
9
10 print(">> Output of Example 01 <<")
11 recursiveMethod(5)
```

▪ Recursion

- A method call itself.
- Exit condition to exit from infinite loop.





Stack

LIFO – Last in first out



Push



Pop



Push

recursiveMethod(1)



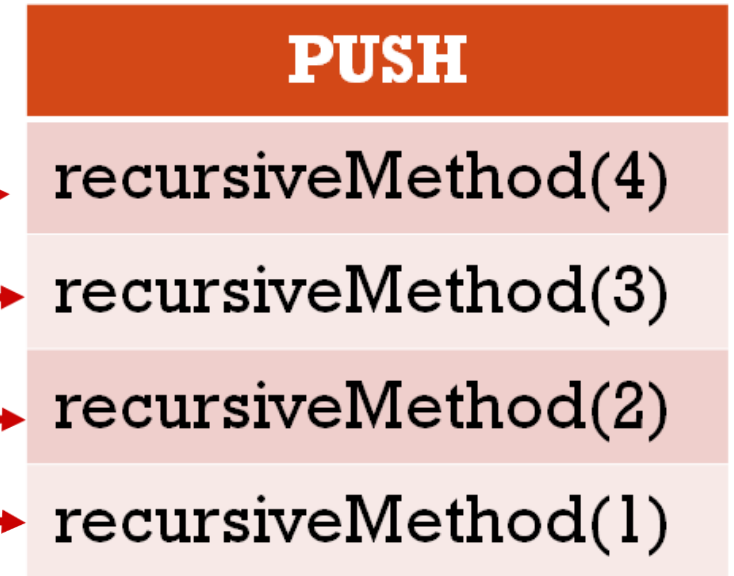
recursiveMethod(2)



recursiveMethod(3)



recursiveMethod(4)



All function pushed in

As 0 is less than 1 no need to store recursiveMethod(0) in stack.



Pop

recursiveMethod(4)



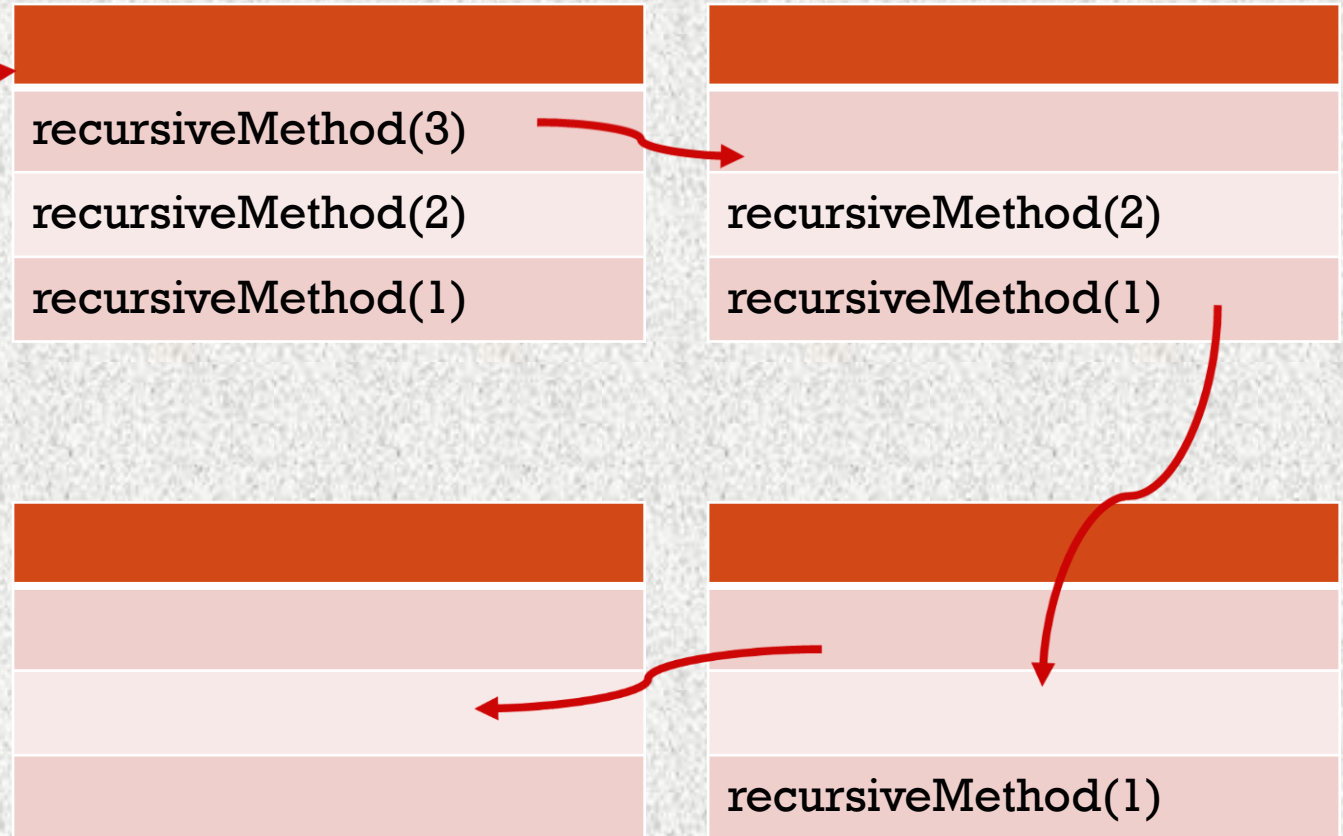
recursiveMethod(3)



recursiveMethod(2)



recursiveMethod(1)



All function popped out



- Output:
- Exit condition Satisfied. Exited.
- 1
- 2
- 3
- 4
- 5

