**RECURSION SOLUTION DESIGN:**

**FACTORIAL:**

**The factorial is the multiplication of the numbers from 1 to th e given range. Consider n as the input then the factorial of n will be 1\*2\*3\*4\*………. n.**

* Base Operation: Multiplication
* First call: Passes the input n from the main () to the function
* The value will be broken by reducing 1 from the n value on consecutive recursive calls.
* The value at each step will be its own value multiplied by (n- 1) factorial.
* The base condition is 1, if the value fed to the function is 1 then the stack values are popped.

**STACK DIAGRAM:**

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**FIBONACCI SERIES:**

**The Fibonacci series starts with 1 and continues by adding the previous two values in the series that is value = f(n-1) + f(n-2).**

* Base Operation: Addition
* First call: Passes the input n from the main () to the function
* The values are broken by reducing 1 and 2 values from the passed value
* Each individual value will be the sum of its previous two numbers in the series
* The base condition is n<=1.

**STACK DIAGRAM:**

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SISTERS AND COIN: