

ZIG- ZAG RECURSION PROGRAM FLOW BY STACK

Zig-Zag recursion

$$[n=2]$$

Output: - Pde2
Pde1
In 2
Post1
In 2
Pde1
In 1
Post1
Post2

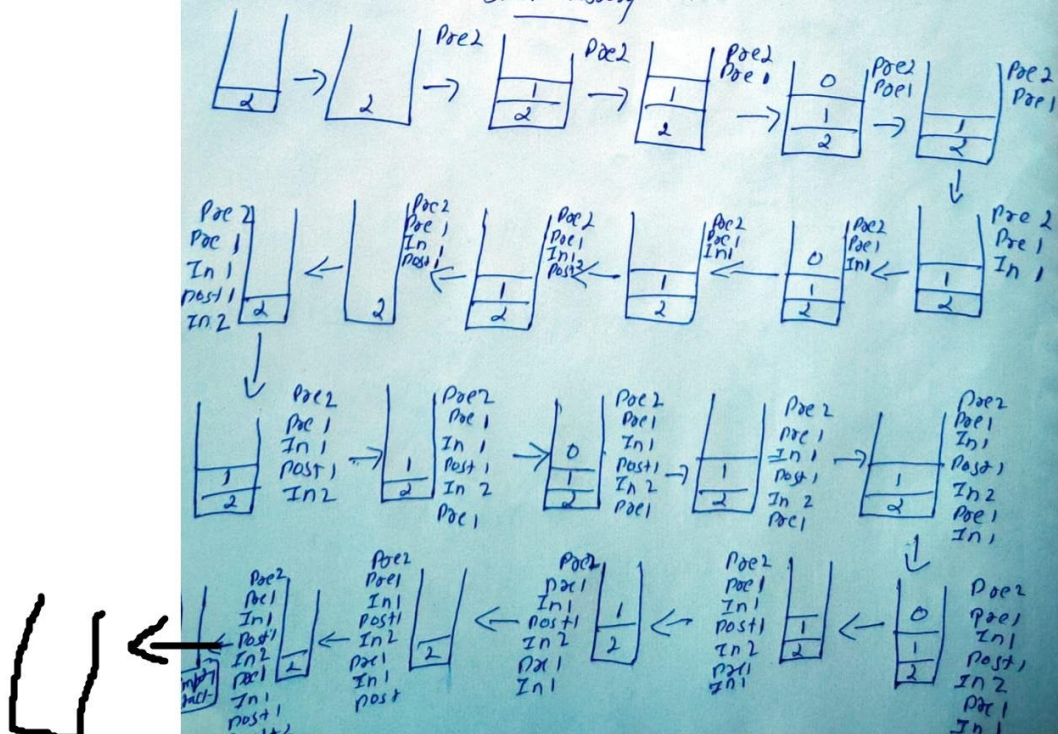
Code :-

```

public static void p22(int n)
{
    if(n==0){
        return;
    }
    S.o.pln("Pre "+n); // Line no:-1
    p22(n-1); // Line no:-2
    S.o.pln("In "+n); // Line no:-3
    p22(n-1); // Line no. 4
    S.o.pln("Post "+n); // Line 5
}

```

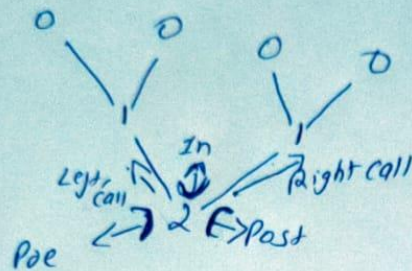
Stuck history



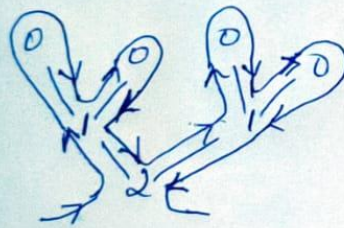
Empty stack

BY EULER TREE (ZIG-ZAG RECURSION) (FOR N=2 AND FOR N=3)

for n=2



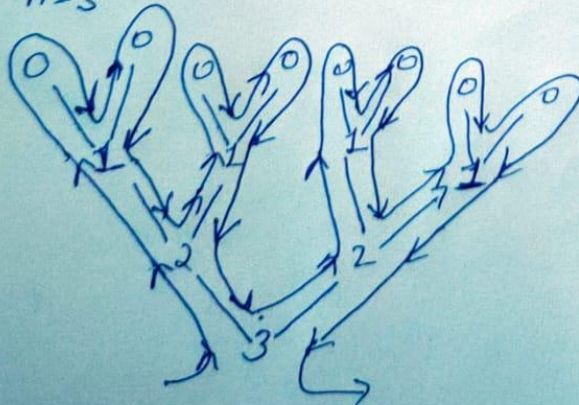
flow:-



output=

```
Pre 2
Pre 1
In 1
Post 1
In 2
Pre 1
In 1
Post 1
Post 2
```

for n=3



output

```
Pre 3 Pre 2
Pre 2 Pre 1
Pre 1 In 1
In 1 Post 1
Post 1 In 2
In 2 Pre 1
Pre 1 In 1
In 1 Post 1
Post 1 Post 2
Post 2 Post 2
In 3 Post 3
```