

14) REVERSING THE STACK USING RECURSION:

METHOD:

USING THE RECURSION INSIDE THE RECURSION.

The concept is little bit complex. So just refer the video explanation below:

LINK OF EXPLANATION : [▶ Reverse a stack using recursion | Stacks | Love Babbar DSA Shee..](#)

CODE OF THE ABOVE METHOD:

```
#include<iostream>
#include<stack>
using namespace std;

void insertAtBottom(stack<int> &s,int data){
    if(s.size()==0){
        s.push(data);
    }
    else{
        int t=s.top();
        s.pop();
        insertAtBottom(s,data);
        s.push(t);
        return;
    }
}

void reverse(stack<int> &s){
    if(s.size()==0){
        return;
    }
    else{
        int data=s.top();
        s.pop();
        reverse(s);
        insertAtBottom(s,data);
        return;
    }
}

int main(){
    stack<int> s;
    int n;
    cout<<"\n Enter the number of element needed in the stack:";
    cin>>n;
    for(int i=0;i<n;i++){
        int t;
        cout<<"\n Enter the element : ";
        cin>>t;
        s.push(t);
    }
}
```

```
        cout<<"\n The Top of the stack : "<<s.top();
    }
    reverse(s);
    cout<<"\n The stack tops after reversing:";
    while(s.size()!=0){
        cout<<"\n The stack Top : "<<s.top();
        s.pop();
    }
    return 0;
}
```