15) SORT A STACK

METHOD:
This sum is very similar to the previous problem of recursion inside the recursion.
The only difference between the previous sum and this sum is that we do not pop the elements till the bottom,we go on popping the elements till the stack becomes empty or the stack top becomes less than the current element to be pushed into the stack.
So instead of insertAtBottom function we have insertAppropriate function which pop only upto the desired value of elements.
LINK OF EXPLANATION: Sort a Stack using recursion | Stacks | Love Babbar DSA Sheet | A.

CODE OF THE PROGRAM:

```
void pushAppropriate(stack<int> &s,int data){
    if(s.size()==0){
        s.push(data);
        return;
    }
    else if(s.top()<data){
        s.push(data);
        return;
    }
    else{
        int x=s.top();
        s.pop();
        pushAppropriate(s,data);
        s.push(x);
        return;
    }
}
void SortedStack :: sort(){
    if(s.size()==0){
        return;
    }
    else{
        int x=s.top();
        s.pop();
        sort();
        pushAppropriate(s,x);
        return;
    }
}
```