Question: https://leetcode.com/problems/decode-string/

What we do here is maintain 2 stacks!

1 to store integers(istck), and 1 to store strings(stck).

Now there will be 4 possibilities when we are traversing the characters of the parameter string.

1.c==integer:push integer in stack for integers.

2.c=='[' push "" to stack for strings

3.c==']' repeat string key for k times and add that to resultant string. where key=stck.peek() and k=istck.peek(). then stck.pop() & istck.pop()

push resultant string to the stack(stck)

4.c==any alphabet update the top element of stck by adding the charecter to the top element of stack.

Now add all strings of stack in bottom to top manner and you will get the result.

Code:

class Solution {

public String decodeString(String s) {

Stack<String> stck = new Stack<>();

Stack<Integer> istck = new Stack<>();

char[] cArray = s.toCharArray();

for(int i=0; i<cArray.length; i++){

char c = cArray[i];

// System.out.println(c);

// System.out.println(stck);

// System.out.println(istck);

if(c=='['){

stck.push("");

}

else if(c==']' && !stck.isEmpty()){

String keyString = stck.peek();

int k=istck.peek();

stck.pop();

istck.pop();

String res="";

while(k>0){

res+=keyString;

k--;

}

if(!stck.isEmpty()) res = stck.peek()+res;

if(!stck.isEmpty()) stck.pop();

stck.push(res);

}

else if(Character.isDigit(c)){

int k=0;

while(i<cArray.length && Character.isDigit(c)){

k=k\*10+(c-'0');

i++;

c=cArray[i];

}

i--;

istck.push(k);

}

else{

if(stck.isEmpty()){

stck.push(c+"");

}

else{

String s1=stck.peek()+c;

stck.pop();

stck.push(s1);

}

}

}

String res="";

while(!stck.isEmpty()){

res=stck.peek()+res;

stck.pop();

System.out.println(res);

}

return res;

}

}

Github Link :<https://lnkd.in/ecwtJeaz>