Talent Battle 100 Days Coding Series

In this problem you will have to implement a simple editor. The editor maintains the content of a string **S** and have two following functions:

"**+ i x**": insert a string **x** into the current string **S** after the **i**'th character of the **S** (we use 1-indexing in this problem). When **i** equals to **0** it mean we add **x** at the beginning of **S**.

"**? i len**": Print the sub-string of length **len** starting at position **i**'th of **S**.

At the beginning, the editor holds an empty string. There will be **Q** queries of the two types described above.

Input

The first line contains the integer **Q**. Each line in the next **Q** lines contains one query.

Output

For each query of the second type, print out the answer sub-string in one line.

Sample Input

5

+ 0 ab

+ 1 c

? 1 3

+ 2 dd

? 1 5

Sample Output

acb

acddb

C++ Solution

```cpp
#include <bits/stdc++.h>
using namespace std;

int main() {
        long n;
        cin>>n;
        string s="";
        while(n--){
          char ch;
          int i;
          string str;
          cin>>ch>>i>>str;
          if(ch=='+'){
            if(i==0){
              s=str+s;
            }
            else{
              s.insert(i,str);

            }
          }
          else{
            cout<<s.substr(i-1,stoi(str))<<endl;
          }
        }
        return 0;
}
```

Java

```java
import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import java.lang.StringBuilder;

public class Main

{

        public static void main(String aa[]) throws IOException

        {

BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

StringBuilder st=new StringBuilder();

int q=Integer.parseInt(br.readLine());

for(int i=0;i<q;i++)

{

        String s[]=br.readLine().split(" ");

        if(s[0].equals("+"))

        {

                int start=Integer.parseInt(s[1]);

                String sub=s[2];

    st.insert(start, sub);


        }else{

                int start=Integer.parseInt(s[1])-1;

                int last=Integer.parseInt(s[2])-1;

                String subt=st.substring(start, start+last+1);

                System.out.println(subt);


        }

}
```

```
        }
    }
```

Python

```python
def insert(string_s, insert_s, pos_i=0):
    return string_s[:pos_i] + insert_s + string_s[pos_i:]


q = int(input())
s = ''
for _ in range(q):
    query = input().split()
    c = query[0]
    i = int(query[1])
    if c == '+':
        sub = query[2]
        if i == 0:
            s = sub + s
        else:
            s = insert(s,sub,i)
    else:
        l = int(query[2])
        print(s[i-1:i+l-1])
```