Evaluation of Postfix Expression

Given string **S** representing a postfix expression, the task is to evaluate the expression and find the final value. Operators will only include the basic arithmetic operators like ***, /, + and -**.

Example 1:

Input: S = "231*+9-"

Output: -4

Explanation:

After solving the given expression,

we have -4 as result.

Example 2:

Input: S = "123+*8-"

Output: -3

Explanation:

After solving the given postfix

expression, we have -3 as result.

Your Task:
You do not need to read input or print anything. Complete the function **evaluatePostfixExpression()** that takes the string S denoting the expression as input parameter and returns the evaluated value.

Expected Time Complexity: O(|S|)
Expected Auixilliary Space: O(|S|)

Constraints:
$1 \leq |S| \leq 10^5$

$0 \leq |S_i| \leq 9$ (And given operators)

```
class Solution
{
    public:
    //Function to evaluate a postfix expression.
    int applyOperation(int op1, int op2 ,char ch){
        switch(ch){
            case '+':
                    return op1 + op2;

            case '-':
                    return op1 - op2;
            case '*':
                    return op1 * op2;
            case '/':
                if (op2 == 0) {
                    throw runtime_error("Division by zero");
                }
                return op1 / op2;
            case '%':
                    return op1 % op2;
        }
        return result;
    }
    int evaluatePostfix(string S)
    {
       stack<int> st;
       for(char ch : S){
           if(isdigit(ch)){
               st.push(ch-'0');
           }else{
               int op2 = st.top();st.pop();
               int op1 = st.top();st.pop();

               int result = applyOperation(op1,op2,ch);
               st.push(result);
           }
       }
       return st.top();
    }
};
```