REMOVE K DIGITS

We are given a number and an integer K in this problem and our job is to remove K digits from the number such that the new number is smallest possible

We solve this problem using monotonic stack approach.

We iterate from left to right of array. If element at the top of stack is smaller than element at hand, we just push it, otherwise we remove latest element from stack and decrement K.

Time and Space Complexity is O(N).

Pseudocode :

```
removeKDigits(string s
    stack<char> st;
    for(i = 0 → N-1) {
        while(!st.empty() && K>0 &&
                (st.top-'0')>(s[i]-'0')){
            st.pop();
            K--;
        }
        st.push(s[i]);
    }
    while(k>0) {
```

```
            st.pop();
            K--;
        }
        if (st.empty()) {
            return "0";
        }
        string res = "";
        while(!st.empty()) {
            res += st.top();
            st.pop();
        }
        return res;
    }
```