```java
while(ep<s.length()){

    //introduce
    char sep = s.charAt(ep);
    hm.put(sep, hm.getOrDefault(sep,0) + 1 );//increment the freq of this person in hashmap
    if(hm.get(sep) == 1) noUnique++;
    if(hm.get(sep) == k) noRepk++;

    //shrink if im having extra chars
    while(noUnique > x){
        char ssp = s.charAt(sp);
        hm.put(ssp,hm.get(ssp) - 1);

        if(hm.get(ssp) == 0) noUnique--;
        if(hm.get(ssp) == k-1) noRepk--;

        sp++;
    }

    //update answer
    if(noUnique == x && noRepk == noUnique) ans = Math.max(ans,ep-sp+1);

    //expand
    ep++;
}
return ans;
```

unique = 3
K = 2
hmap
X = 1

sp
X A B C A B C
ep

0 → 1 no. Unique = X 1
→ 0
→ k no. Rep k = 0
→ k-1

ans = 0

- Intro
- shrink nu > u
- update
- expand

X X X Y Y

sp = 0
ep = 0
noUnique = 0
no Repk = 0
ans = 0

unique = 3 F A B B C D X A C X A C C A D

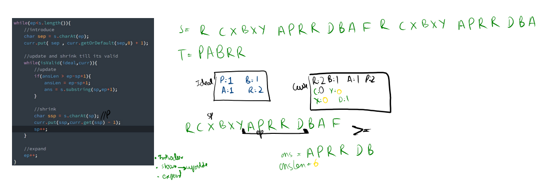
while (ep < n) {

Intro
hm[s[ep]] ++
if(hm.get(s[ep]) == 1) noun ++
if(.. .. == k) nok ++

shrink
while(nounique > limit) {
hm[sp] -- ;
if (hm[sp] == 0) nouniq --
if (hm[sp] == k-1) nokrep --
sp ++
}

ans update
if(uni == limit && nokrep == unique) ans = max(ans, ep-sp+1)

expand
ep++



1 3 -1 -3 2 1 6 7

1 3 -1 -3 5 3 6 7

dq
add(i < k)
consider ans for win(0)
sp = 0
ep = k
while(ep < n)

1 3 -1 -3 2 1 6 7

3 3 2 2 6 7

3 3