

Sliding –Window:

Find the maximum length where there are exactly <=(K) Distinct character :

```
#include<bits/stdc++.h>

using namespace std;

#define ll long long

int main()
{
    ll m;

    while(scanf("%lld",&m) == 1 && m!=0)
    {
        string s;

        //memset(arr,0,sizeof(s));

        ll arr[150] = {0};

        getchar();

        getline(cin,s);

        // cout<<s<<endl;

        ll mx = 0,cnt = 0;

        ll frm= 0 ,to = 0;

        for(int i=0; i<s.size(); i++)
        {
            if(arr[s[i]] == 0)
            {
                cnt++;
            }

            arr[s[i]]++;

            if(cnt <=m)

                mx = max(mx,i - frm + 1);

            if(cnt>m)
            {
                while(cnt>m)
                {
                    arr[s[frm]]--;

                    if(arr[s[frm]] == 0)

                        cnt--;

                    frm++;
                }

                mx = max(mx,i - frm + 1);
            }
        }

        printf("%lld\n",mx);
```

```
    }

    return 0;

}
```