1. Given a string, find the length of the longest substring without repeating characters.The function should return an integer representing the length of the longest substring without repeating characters.

#include <iostream>

#include <unordered\_map>

using namespace std;

int longestSubstr(string s){

unordered\_map<char,int> mp;

int maxlen=0;

int left=0;

int right=0;

while(right<s.length()){

if(mp.find(s[right])!=mp.end() && mp[s[right]]>=left){

left=mp[s[right]]+1;

}

maxlen=max(maxlen,right-left+1);

mp[s[right]]=right;

right++;

}

return maxlen;

}

int main(){

cout<<longestSubstr("aaaaa")<<endl;

cout<<longestSubstr("abcdefgh")<<endl;

cout<<longestSubstr("ababab")<<endl;

cout<<longestSubstr("")<<endl;

cout<<longestSubstr("aabcaa")<<endl;

cout<<longestSubstr("abcddd")<<endl;

}

OUTPUT

