package day7;

import java.util.HashMap;

import java.util.Scanner;

public class Minimum\_Window\_Substring {

public static String minWindow(String s, String t) {

HashMap<Character, Integer> goal = new HashMap<>();

int goalSize = t.length();

int minLen = Integer.MAX\_VALUE;

String result = "";

for(int k=0; k<t.length(); k++){

goal.put(t.charAt(k), goal.getOrDefault(t.charAt(k), 0)+1);

}

int i=0;

int total=0;

HashMap<Character, Integer> map = new HashMap<>();

for(int j=0; j<s.length(); j++){

char c = s.charAt(j);

if(!goal.containsKey(c)){

continue;

}

int count = map.getOrDefault(c, 0);

if(count<goal.get(c)){

total++;

}

map.put(c, count+1);

if(total==goalSize){

while(!goal.containsKey(s.charAt(i)) || map.get(s.charAt(i))>goal.get(s.charAt(i))){

char pc = s.charAt(i);

if(goal.containsKey(pc) && map.get(pc)>goal.get(pc)){

map.put(pc, map.get(pc)-1);

}

i++;

}

if(minLen>j-i+1){

minLen = j-i+1;

result = s.substring(i, j+1);

}

}

}

System.out.println(result);

return result;

}

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter the String");

String s = sc.nextLine();

System.out.println("Enter the target");

String t = sc.nextLine();

minWindow(s,t);

}

}