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*CHECKING WHETHER STRING BELONGS TO THE GRAMMAR*

*#include<stdio.h>*

*#include<string.h>*

*int main()*

*{*

*char s[100];*

*int i,flag,flag1,a,b;*

*int l,count1,count2;*

*printf("enter a string to check: ");*

*scanf("%s",s);*

*l=strlen(s);*

*flag=1;*

*for(i=0;i<l;i++)*

*{*

*if(s[i]!='0' &&s[i]!='1')*

*{*

*flag=0;*

*}*

*}*

*if(flag!=1)*

*printf("string is not valid\n");*

*if(flag==1)*

*{*

*i=0;*

*count1=0;*

*while(s[i]=='0')*

*{*

*count1++;*

*i++;*

*}*

*while(s[i]=='1')*

*{*

*i++;*

*}*

*flag1=1;*

*count2=0;*

*while(i<l)*

*{*

*if(s[i]=='0')*

*{*

*count2++;*

*}*

*else*

*{*

*flag1=0;*

*}*

*i++;*

*}*

*if(flag1==1)*

*{*

*if(count1==count2)*

*{*

*printf("the string satisfies the condition 0^n1^m0^n\n");*

*printf("string accepted\n");*

*}*

*else*

*{*

*printf("the string does not satisfy the condition 0^n1^m0^n\n");*

*printf("string not accepted\n");*

*}*

*}*

*else*

*{*

*printf("the string does not satisfy the condition 0^n1^m0^n\n");*

*printf("string not accepted\n");*

*}*

*}*

*}*

