

## CHECKING WHETHER STRING BELONGS TO THE GRAMMER

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```
#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");
}
}
}
```