

CHECKING WHETHER STRING BELONGS TO THE GRAMMAR:

```
#include<stdio.h>
#include<string.h>
int main()
{
    char s[100];
    int i,flag,flag1;
    int l;
    printf("enter the 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 valid\n");
    else
        printf("string is not valid\n");
    if(flag==1)
    {
        flag1=0;
        for(i=0;i<l-2;i++)
        {
            if(s[i]=='1')
            {
                if(s[i+1]=='0' && s[i+2]=='1')
                {
                    flag1=1;
                    printf("substring 101 exists,string is accepted\n");
                    break;
                }
            }
        }
    }
    if(flag1==0)
        printf("substring 101 does not exist.string is not accepted\n");
}
```

}