**EXP 4 b**

# CHECKING WHETHER A STRING BELONGS TO A GRAMMAR

**AIM :**

To write a C program to check whether a string belongs to the grammar

S -> 0 S 0 | 1 S 1 | 0 | 1 | ε

**Language defined by the Grammar**

Set of all strings over 𝚺={0,1} that are palindrome

#include<stdio.h> #include<string.h> void main()

{

char s[100]; int i,flag,flag1,a,b;

int l;

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)

{

flag1=1; a=0;b=l-1;

while(a!=(l/2))

{

if(s[a]!=s[b])

{

flag1=0;

}

a=a+1; b=b-1;

}

if (flag1==1)

{

printf("The string is a palindrome\n");

printf("string is accepted\n");

} else

{

printf("The string is not a palindrome\n");

printf("string is Not accepted\n");

}

}

}



