

**Exp. No. 13**

Write a C program to implement either Top Down parsing technique or Bottom Up Parsing technique to check whether the given input string is satisfying the grammar or not.

**Program:**

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
int main() {
    char string[50];
    int flag,count=0;
    printf("The grammar is: S->aS, S->Sb, S->ab\n");
    printf("Enter the string to be checked:\n");
    gets(string);
    if(string[0]=='a') {
        flag=0;
        for (count=1;string[count-1]!='\0';count++) {
            if(string[count]=='b') {
                flag=1;
                continue;
            } else if((flag==1)&&(string[count]=='a')) {
                printf("The string does not belong to the specified
grammar");
                break;
            } else if(string[count]=='a')
                continue; else if((flag==1)&&(string[count]!='\0')) {
                printf("String not accepted.....!!!!");
                break;
            } else {
                printf("String accepted");
            }
        }
    }
}
```

## OUTPUT:



```
C:\Users\hp\Documents\Com x + v
The grammar is: S->aS, S->Sb, S->ab
Enter the string to be checked:
abb
String accepted
-----
Process exited after 20.04 seconds with return value 0
Press any key to continue . . .
```