

**EXP NO: 06**

**DATE: - -2022**

## **ASSIGNMENT 6**

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### **Aim:**

To solve the given problems using concept of DFA in C.

**1.** Write a C Program to generate a DFA for a regular expression which accepts a string if the substring "abb" is present.

### **Code:**

```
#include <stdio.h>
#include <string.h>

int check(char x[]){
    printf("%s",x);
    int state=1;
    int i=0;
    int len=strlen(x);
    printf("%d",len);
    while (state!=4 && i<len){
        printf("state: %c ",x[i]);
        if (state==1){
            if (x[i]=='a'){
                state=2;
            }
        }
        else if(state ==2){
            if (x[i]=='b'){
                state=3;
            }
        }
        else if (state==3){-
            if (x[i]=='b'){
                state=4;
            }
        }
    }
}
```

```

        else {
            state=2;
        }
    }
    i+=1;

}
if(state==4){
    printf("Accepted");
}
else{
    printf("Not accepted");
}
return 0;
}

int main(){
    char x[20];
    printf("Enter the string: ");
    scanf("%s",x);
    check(x);
    return 0;
}

```

#### Output:

```

PS E:\7th sem\FLES\six> cd "e:\7th sem\FLES\six"
PS E:\7th sem\FLES\six> & .\index.exe
Enter the string: aabbcc
aabbcc6state: a state: a state: b state: b Accepted
PS E:\7th sem\FLES\six> & .\index.exe
Enter the string: aacc
aacc4state: a state: a state: c state: c Not accepted
PS E:\7th sem\FLES\six>

```

#### Result:

The programs have been executed successfully.