2. Implementation of Language recognizer for set of all strings ending with two symbols of same type.

```c
#include<stdio.h>
void main()
{
    int position=0,i=0;
    char letter,input[20];
    printf("Input a string \t :");
    scanf("%s",input);
    while((letter=input[i++])!='\0')
    {
        switch(position)
        {
            case 0: if(letter=='a')
                        position=1;
                    else if(letter=='b')
                        position=3;
                    else
                    {
                        printf("Invalid letter");
                        exit(0);

                    }
                    break;

            case 1: if(letter=='a')
                        position=2;
                    else if(letter=='b')
                        position=3;
                    else
                    {
```

```c
        printf("Invalid letter");
        exit(0);


    }
    break;


case 2: if(letter=='a')
        position=2;
    else if(letter=='b')
        position=3;
    else
    {
        printf("Invalid letter");
        exit(0);


    }
    break;


case 3: if(letter=='a')
        position=1;
    else if(letter=='b')
        position=4;
    else
    {
        printf("Invalid letter");
        exit(0);


    }
    break;


case 4: if(letter=='a')
```

```c
            position=1;
        else if(letter=='b')
            position=4;
        else
        {
            printf("Invalid letter");
            exit(0);


        }
        break;


    }
  }
  if(position==2 || position==4)
    printf("\n\nString accepted\n\n");
  else
    printf("\n\nString not accepted\n\n");
}
```