Week 1: Implementation of Language recognizer :

1. Implementation of Language recognizer for set of all strings ending with two

symbols of same type.

Strings that are accepted are aa, bb, ababb, aabbaa etc….

Strings that are not accepted are ab, bab, aabab, ababa etc….

#include<stdio.h>

#include<stdlib.h>

void main(){

int state=0,i=0;

char current,input[20];

printf("Enter input string \t :");

scanf("%s",input);

while((current=input[i++])!='\0'){

switch(state)

{

case 0: if(current=='a')

state=1;

else if(current=='b')

state=3;

else

{

printf("Invalid token");

exit(0);

}

break;

case 1: if(current=='a')

state=2;

else if(current=='b')

state=3;else

{

printf("Invalid token");

exit(0);

}

break;

case 2: if(current=='a')

state=2;

else if(current=='b')

state=3;

else

{

printf("Invalid token");

exit(0);

}

break;

case 3: if(current=='a')

state=1;

else if(current=='b')

state=4;

else

{

printf("Invalid token");

exit(0);

}

break;

case 4: if(current=='a')

state=1;

else if(current=='b')

state=4;

else

{

printf("Invalid token");

exit(0);

}

break;

}

}

if(state==2||state==4)

printf("\n\nString accepted\n\n");

else

printf("\n\nString not accepted\n\n");

}OUTPUT:

Enter input String: aabbaa

String accepted

Enter input String: abab

String not accepted

Screenshot



