DFA to accept strings that start with ab over input alphabets

#include <stdio.h>

#include <string.h>

int main() {

    char str[100];

    printf("DFA to accept strings that start with ab over input alphabets (a, b)\n");

    printf("Enter string: ");

    scanf("%s", str);

    // Check if the string has at least two characters

    if (strlen(str) >= 2 && str[0] == 'a' && str[1] == 'b') {

        printf("String accepted\n");

    } else {

        printf("String rejected\n");

    }

    return 0;

}

DFA to accept strings that start with aa or bb over input alphabets

#include <stdio.h>

#include <string.h>

int main() {

int i;

char str[100];

printf("DFA to accept strings that start with aa or bb over input alphabets (a, b)\n");

printf("Enter string: ");

// Use %99s to prevent buffer overflow

scanf("%99s", str);

if (str[0] == 'a' && str[1] == 'a') {

printf("String accepted\n");

} else if (str[0] == 'b' && str[1] == 'b') {

printf("String accepted\n");

} else {

printf("String rejected\n");

}

return 0;

}

DFA to accept strings that start with aba over input alphabets

#include <stdio.h>

#include <string.h>

int main() {

int i;

char str[100];

printf("DFA to accept strings that start with aba over input alphabets (a,b)\n");

printf("Enter string: ");

scanf("%99s", str);

// Check if the string is long enough

if (strlen(str) >= 3 && str[0] == 'a' && str[1] == 'b' && str[2] == 'a') {

printf("String accepted\n");

} else {

printf("String rejected\n");

}

return 0;

}