1. **Write a C program to simulate a Deterministic Finite Automata (DFA) for the given language representing strings that start with a and end with a**

**AIM :** To Write a C program to simulate a Deterministic Finite Automata (DFA) for the given language representing strings that start with a and end with a

**CODE :**

#include <stdio.h>

#include <string.h>

int main() {

char input[100];

int currentState = 0;

int finalState = 1;

printf("Enter a string: ");

scanf("%s", input);

for (int i = 0; i < strlen(input); i++) {

if (currentState == 0 && input[i] == 'a') {

currentState = 1;

} else if (currentState == 1 && input[i] != 'a') {

currentState = 0;

}

}

if (currentState == finalState) {

printf("The string \"%s\" is accepted by the DFA.\n", input);

} else {

printf("The string \"%s\" is not accepted by the DFA.\n", input);

}

return 0;

}

**OUTPUT :**



