8.Write a C program to simulate a Non-Deterministic Finite Automata (NFA) for the given language representing strings that start with b and end with a

PROGRAM:

#include <stdio.h>

#include <stdbool.h>

#include <string.h>

#define STATES 3

#define ALPHABET\_SIZE 2

bool simulateNFA(char \*input) {

int currentState = 0;

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

char symbol = input[i];

switch (currentState) {

case 0:

if (symbol == 'b') {

currentState = 1;

}

break;

case 1:

if (symbol == 'b') {

currentState = 1;

} else if (symbol == 'a') {

currentState = 2;

}

break;

case 2:

break;

}

}

return currentState == 2;

}

int main() {

char input[100];

printf("Enter a string: ");

scanf("%s", input);

if (simulateNFA(input)) {

printf("Accepted: The string starts with 'b' and ends with 'a'\n");

} else {

printf("Rejected: The string does not satisfy the condition\n");

}

return 0;

}

OUTPUT:



