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

Program:

#include <stdio.h>

#include <stdbool.h>

bool nfa\_transition(int current\_state, char input) {

if (current\_state == 0 && input == 'b') {

return true;

} else if (current\_state == 1 && input == 'a') {

return true;

}

return false;

}

bool simulate\_nfa(const char \*input\_string) {

int current\_state = 0;

int i;

for (i = 0; input\_string[i] != '\0'; ++i) {

if (nfa\_transition(current\_state, input\_string[i])) {

current\_state++;

}

}

return current\_state == 2;

}

int main() {

char input[100];

printf("Enter a string: ");

scanf("%s", input);

if (simulate\_nfa(input)) {

printf("String is accepted by the NFA.\n");

} else {

printf("String is not accepted by the NFA.\n");

}

return 0;

}