#include <stdio.h>

#include <stdbool.h>

#define MAX\_STATES 100

int nfa[MAX\_STATES][MAX\_STATES];

int nfa\_states;

bool visited[MAX\_STATES];

void epsilonClosure(int state) {

visited[state] = true;

for (int i = 0; i < nfa\_states; i++) {

if (nfa[state][i] == 1 && !visited[i]) {

epsilonClosure(i);

}

}

}

int main() {

// Initialize NFA transitions with ℇ-moves

// nfa[i][j] = 1 if there is an ℇ-move from state i to state j

// Set the number of states in the NFA

nfa\_states = 5; // Example: NFA with 5 states

// Initialize NFA transitions with ℇ-moves

// Example: Define ℇ-moves in the NFA

nfa[0][1] = 1;

nfa[1][2] = 1;

nfa[1][3] = 1;

nfa[3][4] = 1;

// Find ℇ-closure for all states

for (int i = 0; i < nfa\_states; i++) {

for (int j = 0; j < nfa\_states; j++) {

visited[j] = false;

}

epsilonClosure(i);

// Print the ℇ-closure for state i

printf("ℇ-closure(%d): ", i);

for (int j = 0; j < nfa\_states; j++) {

if (visited[j]) {

printf("%d ", j);

}

}

printf("\n");

}

return 0;

}