2) Develop a lexical Analyzer to identify whether a given line is a comment or not using C

#include <stdio.h>

#include <string.h>

void check\_comment(char \*line) {

if (strncmp(line, "//", 2) == 0) {

printf("This is a single-line comment.\n");

}

else if (strncmp(line, "/\*", 2) == 0 && strstr(line, "\*/") != NULL) {

printf("This is a multi-line comment.\n");

}

else {

printf("This is not a comment.\n");

}

}

int main() {

char line[200];

printf("Enter a line: ");

fgets(line, sizeof(line), stdin);

line[strcspn(line, "\n")] = '\0';

check\_comment(line);

return 0;

}

