PROGRAM:-

#include <stdio.h>

#include <string.h>

#define MAX\_LENGTH 1000 // Maximum input size

// Function to check if the given line is a comment

void checkComment(char \*line) {

int length = strlen(line);

if (length >= 2) {

// Check for single-line comment (//)

if (line[0] == '/' && line[1] == '/') {

printf("Single-line Comment: %s\n", line);

return;

}

// Check for multi-line comment (/\* ... \*/)

if (line[0] == '/' && line[1] == '\*') {

if (length >= 4 && line[length - 2] == '\*' && line[length - 1] == '/') {

printf("Multi-line Comment: %s\n", line);

} else {

printf("Invalid Comment (Unclosed multi-line comment): %s\n", line);

}

return;

}

}

printf("Not a Comment: %s\n", line);

}

int main() {

char input[MAX\_LENGTH];

printf("Enter a line of code: ");

fgets(input, MAX\_LENGTH, stdin);

// Remove newline character if present

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

checkComment(input);

return 0;

}

OUTOUT:-

