Exp:28

Code:

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#define MAX\_LINE\_LENGTH 1024

void grep(const char \*pattern, FILE \*file);

int main(int argc, char \*argv[]) {

const char \*pattern;

FILE \*file;

// Ensure proper usage

if (argc < 2) {

fprintf(stderr, "Usage: %s pattern [file...]\n", argv[0]);

exit(EXIT\_FAILURE);

}

// Get pattern from command line argument

pattern = argv[1];

// If files are specified, open each file and grep

if (argc >= 3) {

for (int i = 2; i < argc; i++) {

file = fopen(argv[i], "r");

if (file == NULL) {

perror(argv[i]);

continue;

}

grep(pattern, file);

fclose(file);

}

} else { // Grep from standard input

grep(pattern, stdin);

}

return 0;

}

void grep(const char \*pattern, FILE \*file) {

char line[MAX\_LINE\_LENGTH];

// Read lines from file or stdin

while (fgets(line, sizeof(line), file) != NULL) {

// Search for pattern in line

if (strstr(line, pattern) != NULL) {

// Print the line containing the pattern

printf("%s", line);

}

}

}

Output:

