#include <stdio.h>

#include <stdlib.h>

#include <ctype.h>

void analyzeFile(const char \*filename)

{

FILE \*file = fopen(filename, "r");

if (file == NULL) {

printf("Error: Could not open file %s\n", filename);

return;

}

int characters = 0, words = 0, lines = 0;

char ch, prev = '\0';

while ((ch = fgetc(file)) != EOF)

{

characters++;

if (ch == '\n') lines++;

if (isspace(ch) && !isspace(prev)) words++;

prev = ch;

}

if (!isspace(prev)) words++;

printf("Characters: %d\n", characters);

printf("Words: %d\n", words);

printf("Lines: %d\n", lines);

fclose(file);

}

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

{

if (argc != 2) {

printf("Usage: %s <filename>\n", argv[0]);

return 1;

}

analyzeFile(argv[1]);

return 0;

}