#include <stdio.h>

#include <stdlib.h>

#include <conio.h>

FILE \*input, \*output;

void enterInputFILE(void)

{

int i;

char inputDir[256];

do{

printf("Vuvedete input faila (C programa koqto SE KOMPILIRA USPE6NO!): ");

scanf("%s", &inputDir);

for(i = 0; inputDir[i] != '\0'; i++);

if(inputDir[i-1] != 'c' || inputDir[i-2] != '.')

{

printf("Faila Trqbva da e s raz6irenie .c \n");

continue;

}

input = fopen(inputDir, "r");

if(input==NULL)

{

printf("Gre6ka pri otvarqne na faila!\n");

}

}while(input == NULL);

}

void enterOutput(void)

{

char outputDir[222];

printf("\nEnter output filelocation: ");

scanf("%s",&outputDir);

output=fopen(outputDir,"w+");

}

void enterFromKeyboard(void)

{

int currentChar;

int i;

char inputDir[256];

do{

printf("Vuvedete faila za zapis na vxodnata programa: ");

scanf("%s", &inputDir);

for(i = 0; inputDir[i] != '\0'; i++);

if(inputDir[i-1] != 'c' || inputDir[i-2] != '.')

{

printf("Faila Trqbva da e s raz6irenie .c \n");

continue;

}

else

{

break;

}

}while(1);

input = fopen(inputDir, "w");

printf("Vuvedete programata do natiskane na CTRL + Z (bez da triete): \n");

do{

currentChar = getch();

if(currentChar != 26)

{

if(currentChar == '\r')

{

printf("\n");

fprintf(input,"\n");

}

else

{

printf("%c", currentChar);

fprintf(input,"%c",currentChar);

}

}

}while(currentChar != 26);

fclose(input);

input = fopen(inputDir, "r");

}

void chooseInput(void)

{

int ch;

do{

system("cls");

printf("1. Vuvejdane ot fail.\n");

printf("2. Vuvejdane ot klaviaturata.\n");

scanf("%d", &ch);

if(ch == 1 || ch == 2)

{

break;

}

}while(1);

if(ch == 1)

{

enterInputFILE();

}

else

{

enterFromKeyboard();

}

}

void calculateEmptyRows()

{

int rows = 0;

int rowsCounter = 0, row, i, currnetRowLength;

int currentChar, isItEmpty = 1;

char currnetRow[600];

rewind(input);

do{

currentChar=fgetc(input);

if(currentChar == '\n')

{

rowsCounter++;

}

}while(currentChar != EOF);

rowsCounter++;

rewind(input);

for(row = 0; row < rowsCounter; row++)

{

for(i=0;;i++)

{

currentChar=fgetc(input);

if(currentChar == EOF || currentChar == '\n')

{

currnetRow[i] = '\0';

currnetRowLength = i;

break;

}

else

{

currnetRow[i] = currentChar;

}

}

for(i = 0; i < currnetRowLength; i++)

{

if(currnetRow[i] != '\n' && currnetRow[i] != '\t' && currnetRow[i] != '\v' && currnetRow[i] != ' ' && currnetRow[i] != EOF)

{

isItEmpty = 0;

break;

}

}

if(isItEmpty)

{

rows++;

}

isItEmpty = 1;

}

printf("Broq na praznite redove e %d.\n", rows);

fprintf(output, "Broq na praznite redove e %d.\n", rows);

}

void func3(void)

{

int simvolCounter = 0, redoveCounter = 0, currentChar;

rewind(input);

while((currentChar=fgetc(input))!=EOF)

{

simvolCounter++;

if(currentChar == '\n')

{

redoveCounter++;

}

}

simvolCounter++;

redoveCounter++;

printf("Sredniq broi simvoli na red e %f.\n", (float)simvolCounter/(float)redoveCounter);

fprintf(output, "Sredniq broi simvoli na red e %f.\n", (float)simvolCounter/(float)redoveCounter);

}

void function4(void)

{

int currentChar, comentCounter = 0;

int check1 = 0, check2 = 0, check3 = 0;

rewind(input);

while((currentChar=fgetc(input))!=EOF)

{

if(currentChar=='\"')

{

for(;;)

{

currentChar=fgetc(input);

if(currentChar=='\\')

{

currentChar=fgetc(input);

if(currentChar=='\"')

{

continue;

}

}

else if(currentChar=='\"')

{

break;

}

}

continue;

}

if( (check1 == 1) && (currentChar == '\*'))

{

comentCounter++;

for(;;)

{

currentChar=fgetc(input);

if(currentChar=='\*')

{

check3=1;

continue;

}

if((check3==1) && (currentChar=='/'))

{

check1 = 0;

check2 = 0;

check3 = 0;

break;

}

else

{

check3=0;

}

if(currentChar==EOF)

{

break;

}

}

}

else

{

check1 = 0;

}

if( (check2 == 1) && (currentChar == '/'))

{

comentCounter++;

check1 = 0;

check2 = 0;

do{

currentChar=fgetc(input);

if(currentChar==EOF)

{

break;

}

}while(currentChar!='\n');

if(currentChar==EOF)

{

break;

}

}

else

{

check2 = 0;

}

if(currentChar == '/')

{

check1 = 1;

check2 = 1;

}

}

printf("Broq na komentarite e %d.\n", comentCounter);

fprintf(output, "Broq na komentarite e %d.\n", comentCounter);

}

int main(void)

{

int choice, firstCheck = 0;

do{

system("cls");

printf("1. Izbor na fail za obrabotka.\n");

printf("2. Broq na praznite redove v programata.\n");

printf("3. Sredniq broi simvoli na programen red.\n");

printf("4. Broi na komentarite.\n");

printf("0. Izxod.\n");

printf("Izberete opciq ot slednoto menu: ");

fflush(stdin);

scanf("%d", &choice);

switch(choice)

{

case 1:

chooseInput();

enterOutput();

firstCheck = 1;

break;

case 2:

if(firstCheck == 1)

{

calculateEmptyRows();

}

else

{

printf("Purvo prez opciq 1!!\n");

}

system("Pause");

break;

case 3:

if(firstCheck == 1)

{

func3();

}

else

{

printf("Purvo prez opciq 1!!\n");

}

system("Pause");

break;

case 4:

if(firstCheck == 1)

{

function4();

}

else

{

printf("Purvo prez opciq 1!!\n");

}

system("Pause");

break;

case 0:

break;

default:

printf("Nevalidna opciq\n");

system("Pause");

break;

}

}while(choice != 0);

system("Pause");

}