#include <stdio.h>

#include <stdlib.h>

#include <conio.h>

FILE \*input, \*output;

char inDir[200];

void enterInputFILE(void)

{

do{

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

scanf("%s", &inDir);

input = fopen(inDir, "r");

if(input==NULL)

{

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

}

}while(input == NULL);

}

void enterOutput(void)

{

char outputDir[222];

system("cls");

printf("Enter output filelocation: ");

scanf("%s",&outputDir);

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

}

void enterFromKeyboard(void)

{

int currentChar;

input = fopen("input.txt", "w");

system("cls");

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("input.txt", "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 func3(void)

{

// invlude text in coments

int currentChar;

int redove = 0, maxRedove = 0;

int isItFound = 0;

rewind(input);

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

{

if(currentChar == '|')

{

isItFound = 1;

}

else if(currentChar == '\n')

{

maxRedove++;

if(isItFound == 0)

{

redove++;

}

isItFound = 0;

}

}

maxRedove++;

if(isItFound == 0)

{

redove++;

}

printf("Sreden broi na redove nesudurja6ti simvola | kum ob6tiq broi redove e %f\n", (float)redove/(float)maxRedove);

fprintf(output, "Sreden broi na redove nesudurja6ti simvola | kum ob6tiq broi redove e %f\n", (float)redove/(float)maxRedove);

}

void function4(void)

{

int currentChar, coments = 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;

}

else if(currentChar=='\n')

{

break;

}

}

continue;

}

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

{

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 == '/'))

{

coments++;

check1 = 0;

check2 = 0;

do{

currentChar=fgetc(input);

if(currentChar==EOF)

{

break;

}

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

if(currentChar==EOF)

{

break;

}

else

{

continue;

}

}

else

{

check2 = 0;

}

if(currentChar == '/')

{

check1 = 1;

check2 = 1;

}

}

printf("Broqt na redovete sudurja6ti komentar ot tipa // e %d.\n", coments);

fprintf(output, "Broqt na redovete sudurja6ti komentar ot tipa // e %d.\n", coments);

}

void function2(void)

{

int cifri = 0;

int malki = 0;

int golemi = 0;

int currentChar;

int currentRow = 1;

//vklu4itelno i teksta v komentarite

rewind(input);

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

{

if(currentChar >= '0' && currentChar <='9')

{

cifri++;

}

else if(currentChar >= 'a' && currentChar <='z')

{

malki++;

}

else if(currentChar >= 'A' && currentChar <='Z')

{

golemi++;

}

else if(currentChar == '\n')

{

printf("Na red %d ima %d cifri i %d malki bukvi i %d glavni bukvi.\n", currentRow, cifri, malki, golemi);

fprintf(output, "Na red %d ima %d cifri i %d malki bukvi i %d glavni bukvi.\n", currentRow, cifri, malki, golemi);

currentRow++;

cifri = 0;

malki = 0;

golemi = 0;

}

}

printf("Na red %d ima %d cifri i %d malki bukvi i %d glavni bukvi.\n", currentRow, cifri, malki, golemi);

fprintf(output, "Na red %d ima %d cifri i %d malki bukvi i %d glavni bukvi.\n", currentRow, cifri, malki, golemi);

}

int main(void)

{

int choice, firstCheck = 0;

do{

system("cls");

if(firstCheck != 0 && inDir != NULL)

{

printf("%s\n", inDir);

}

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

printf("2. Namira cifri malki i glavni bukvi za vseki red ot programata.\n");

printf("3. Sreden broi na redove nesudurja6ti simvola | kum ob6tiq broi redove.\n");

printf("4. Broq na redovete sudurja6ti komentar ot tipa //.\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)

{

function2();

}

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");

}