#include<stdio.h>

#include<stdlib.h>

#include<string.h>

//#include<iostream.h>//

using namespace std;

string keywords[20] = { "include","void","main","int",

"char","float","double","if",

"else","then","break","continue",

"for","do","while","printf","scanf",

"begin","end","return" };

char rz[99999] = " ";

string id[10000];

int pp = 0;

string nu[10000];

int qq = 0;

int isLetter(char a) //判断是否是字母

{

请完成此函数

}

int isDigit(char a) //判断是否是数字

{

请完成此函数

}

int alpha(int st) //识别保留字和标识符，给此函数的的语句加上注

释

{

char wordbuf[20] = " ";

int n = 0;

for (;;)

{

wordbuf[n] = rz[st];

st++;

n++;

if ((isDigit(rz[st]) == 1) || (isLetter(rz[st]) == 1) || (rz[st] == '\_'))

wordbuf[n] = rz[st];

else

break;

}

int flag = 0;

for (int k = 0; k < 20; k++)

{

if (strcmp(keywords[k].c\_str(),wordbuf) == 0)

flag = 1;

}

if (flag == 0)

{

int flagg = -1;

for (int t = 0; t < pp; t++)

{

if (strcmp(id[t].c\_str(), wordbuf) == 0)

{

flagg = t;

}

}

if (flagg != -1)

printf(" (id,%d) ", flagg);

else

{

id[pp] = wordbuf;

printf(" (id,%d) ", pp);

pp++;

}

}

else

{

printf(" (");

for (int i = 0; i < n; i++)

{

printf("%c", wordbuf[i]);

}

printf(",-) ");

}

return st;

}

int number(int st) //识别整数

{

char numbuf[20] = " ";

int n = 0;

int k = 0;

int flag = 0;

for (;;)

{

numbuf[n] = rz[st];

st++;

n++;

if (isDigit(rz[st]) == 1)

{

numbuf[n] = rz[st];

}

else if ((k == 0) && (rz[st] == '.'))

{

numbuf[n] = rz[st];

k++;

}

else if (isLetter(rz[st]) == 1)

{

numbuf[n] = rz[st];

flag = 1;

continue;

}

else

break;

}

if (flag == 0)

{

int flagg = -1;

for (int t = 0; t < qq; t++)

if (strcmp(nu[t].c\_str(), numbuf) == 0)

flagg = t;

if (flagg != -1)

printf(" (nu,%d) ", flagg);

else

{

nu[qq] = numbuf;

printf(" (nu,%d) ", qq);

qq++;

}

}

else {

printf(" (");

for (int i = 0; i < n; i++)

printf("%c", numbuf[i]);

printf(",error digital!) ");

}

return st;

}

int anotation(int st) //处理除号/和注释，给此函数的语句加上注释

{

char tabuf[9999] = " ";

int n = 0;

st++;

if (rz[st] == '/')

{

printf(" (//,-)");

st++;

while (rz[st] != 10)

{

tabuf[n] = rz[st];

st++;

n++;

}

printf(" \n 注释");

for (int i = 0; i < n; i++)

printf("%c", tabuf[i]);

}

else if (rz[st] == '\*')

{

printf(" (/\*,-) ");

st++;

int stt = st + 1;

while (1)

{

if (rz[st] == '\*' && rz[st + 1] == '/')

break;

tabuf[n] = rz[st];

st++;

n++;

if (rz[st + 1] == '\0')

{

printf("(/\* error!!\n)");

return st + 1;

}

}

printf(" \n 注释");

for (int i = 0; i < n; i++)

printf("%c", tabuf[i]);

printf(" (\*/,-) ");

st = st + 2;

}

else if (rz[st] == '=')

{

st++;

printf(" (/\*,-) ");

}

else printf(" (/,-) ");

return st;

}

int other(int st) //函数识别其他特殊字符

{

switch (rz[st])

{

case'=':

st++;

if (rz[st] == '=')

{

st++;

printf(" (rlop,==) ");

}

else

printf(" (rlop,=) ");

break;

case'+':

st++;

if (rz[st] == '=')

{

st++;

printf(" (+=,-) ");

}

else if (rz[st] == '+')

{

st++;

printf(" (++,-) ");

}

else printf(" (+,-) ");

break;

case'-':

st++;

if (rz[st] == '=')

{

st++;

printf(" (-=,-) ");

}

else if (rz[st] == '-')

{

st++;

printf(" (--,-) ");

}

else

printf(" (-,-) ");

break;

case'\*':

st++;

if (rz[st] == '=')

{

st++;

printf(" (\*=,-) ");

}

else

printf(" (\*,-) ");

break;

case'>':

st++;

if (rz[st] == '=')

{

st++;

printf(" (rlop,>=) ");

}

else printf(" (rlop,>) ");

break;

case'<':

st++;

if (rz[st] == '=')

{

st++;

printf(" (rlop,<=) ");

}

else

printf(" (rlop,<) ");

break;

case'%':

st++;

if (rz[st] == '=')

{

st++;

printf(" (\%=,-) ");

}

else

printf(" (\%,-) ");

break;

case'!':

st++;

if (rz[st] == '=')

{

st++;

printf(" (!=,-) ");

}

else

printf(" (!,wrong thing!) ");

break;

case'&':

st++;

if (rz[st] == '&')

{

st++;

printf(" (&&,-) ");

}

else printf(" (&,worng word!) ");

break;

case'|':

st++;

if (rz[st] == '|')

{

st++;

printf(" (||,-) ");

}

else

printf(" ( |,worng word ! ) ");

break;

case'{':

st++;

printf(" ({,-) ");

break;

case'}':

st++;

printf(" (},-) ");

break;

case'(':

st++;

printf(" ((,-) ");

break;

case')':

st++;

printf(" (),-) ");

break;

case'[':

st++;

printf(" ([,-) ");

break;

case']':

st++;

printf(" (],-) ");

break;

case':':

st++;

printf(" (:,-) ");

break;

case'#':st++;

printf(" (#,-) ");

break;

case';':

st++;

printf(" (;,-) ");

break;

case'.':

st++;

printf(" (.,-) ");

break;

case',':

st++;

printf(" (,,-) ");

break;

case' ':

st++;

break;

case ' ':

st++;

break;

case 10:

st++;

printf("\n");

break;

case34:

st++;

printf(" (\",-) ");

break;

case39:

st++;

printf(" (',-) ");

break;

default:

printf(" (%c,worngthing) ", rz[st]);

st++;

}

return st;

}

int choice(int st) //根据读入的单词的第一个字符确定调用不同的单词识别函数

{

if (isLetter(rz[st]) == 1)

st = alpha(st);

else if (isDigit(rz[st]) == 1)

请填写语句

else if (rz[st] == '/')

请填写语句

else

请填写语句

return st;

}

int main()

{

int i = 0;

FILE\* fp;

char name[10];

printf("请输入文件名:\n");

scanf("%s", &name);

if ((fp = fopen(name, "r")) == NULL)

{

printf("Open error!");

exit(0);

}

char ch = fgetc(fp);

while (ch != EOF)

{

rz[i] = ch;

i++;

ch = fgetc(fp);

}

fclose(fp);

int j = 0;

while (rz[j] != '\0')

j = choice(j);

cout << endl << " 程序中标示符如下 " << endl;

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

cout << i << " " << id[i] << endl;

cout << " 程序中数字如下" << endl;

for (j = 0; j < qq; j++)

cout << j << " " << nu[j] << endl;

system("pause");

}