**/\* Program No.:**

**Aim: WAP to read a C Program File and separate the tokens in the C Program.**

**\*/**

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

#include<conio.h>

#define header 4

#define key 8

#define op 8

#define pun 7

void main()

{

clrscr();

FILE \*file;

char ch,\*cur,\*\*list;

char head[header][20]={"stdio.h","conio.h","stdlib.h","math.h"};

char keyw[key][20]={"void","int","float","char","include","return","main","printf"};

char oper[op][2]={"+","-","/","\*","%","=","<",">"};

char punc[pun][2]={"{","}","(",")","#",";",","};

int i=0,j,count=0,value;

int d\_head=7,d\_key=7,d\_oper=7,d\_punc=7,d\_iden=7;

file=fopen("add.c","r");

if(file==NULL)

{

printf("Cannot open input file.\n");

getch();

exit(1);

}

printf("Contents of the file:\n\n\n");

do

{

ch=fgetc(file);

printf("%c",ch);

switch(ch)

{

case '\n':

case ' ':

cur[i]='\0';

if(i!=0)

strcpy(list[count++],cur);

i=0;

break;

case '#':

case ';':

case '(':

case ')':

case '{':

case '}':

case '<':

case '>':

case ',':

cur[i]='\0';

if(i!=0)

strcpy(list[count++],cur);

i=0;

cur[i++]=ch;

cur[i]='\0';

if(i!=0)

strcpy(list[count++],cur);

i=0;

break;

case '=':

case '+':

case '-':

case '\*':

case '/':

cur[i]='\0';

if(i!=0)

strcpy(list[count++],cur);

i=0;

cur[i++]=ch;

cur[i]='\0';

if(i!=0)

strcpy(list[count++],cur);

i=0;

break;

default:

cur[i++]=ch;

}

}while(!feof(file));

printf("\n\n\nPress any key to continue.");

getch();

clrscr();

gotoxy(5,5);

puts("Header Files");

gotoxy(20,5);

puts("Keywords");

gotoxy(35,5);

puts("Operators");

gotoxy(50,5);

puts("Punctuation");

gotoxy(65,5);

puts("Identifiers");

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

{

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

{

if(strcmp(list[i],head[j])==0)

{

value=1;

break;

}

}

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

{

if(strcmp(list[i],keyw[j])==0)

{

value=2;

break;

}

}

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

{

if(strcmp(list[i],oper[j])==0)

{

value=3;

break;

}

}

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

{

if(strcmp(list[i],punc[j])==0)

{

value=4;

break;

}

}

switch(value)

{

case 1:

gotoxy(5,d\_head);

puts(list[i]);

value=0;

d\_head++;

break;

case 2:

gotoxy(20,d\_key);

puts(list[i]);

value=0;

d\_key++;

break;

case 3:

gotoxy(35,d\_oper);

puts(list[i]);

value=0;

d\_oper++;

break;

case 4:

gotoxy(50,d\_punc);

puts(list[i]);

value=0;

d\_punc++;

break;

default:

gotoxy(65,d\_iden);

puts(list[i]);

d\_iden++;

}

}

fclose(file);

getch();

}

**/\***

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