#include<string.h>

#include<ctype.h>

#include<stdio.h>

void keyword(char str[10])

{

if(strcmp("for",str)==0||strcmp("while",str)==0||strcmp("do",str)==0||strcmp("int",

str

)==0||strcmp("float",str)==0||strcmp("char",str)==0||strcmp("double",str)==0||strcmp("static",str)==0||strcmp("switch",str)==0||strcmp("case",str)==0)

printf("\n%s is a keyword",str);

else

printf("\n%s is an identifier",str);

}

main()

{

FILE \*f1,\*f2,\*f3;

char c, str[10], st1[10];

int num[100], lineno=0, tokenvalue=0,i=0,j=0,k=0;

printf("\n Enter the input in the program. Input at least 3 lines by pressing Enter at the end of each line. When done, press CTRL+D: ");/\*gets(st1);\*/

f1=fopen("input","w");

while((c=getchar())!=EOF)

putc(c,f1);

fclose(f1);

f1=fopen("input","r");

f2=fopen("identifier","w");

f3=fopen("specialchar","w");

while((c=getc(f1))!=EOF)

{

if(isdigit(c))

{

tokenvalue=c-'0';

c=getc(f1);

while(isdigit(c))

{

tokenvalue\*=10+c-'0';

c=getc(f1);

}

num[i++]=tokenvalue;

ungetc(c,f1);

}

else

if(isalpha(c))

{

putc(c,f2);

c=getc(f1);

while(isdigit(c)||isalpha(c)||c=='\_'||c=='$')

{

putc(c,f2);

c=getc(f1);

}

putc(' ',f2);

ungetc(c,f1);

}

else

if(c==' '||c=='\t')

printf(" ");

else

if(c=='\n')

lineno++;

else

putc(c,f3);

}

fclose(f2);

fclose(f3);

fclose(f1);

printf("\n The no's in the program are :");

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

printf("%d", num[j]);

printf("\n");

f2=fopen("identifier", "r");

k=0;

printf("The keywords and identifiers are:");

while((c=getc(f2))!=EOF)

{

if(c!=' ')

str[k++]=c;

else

{

str[k]='\0';

keyword(str);

k=0;

}

}

fclose(f2);

f3=fopen("specialchar","r");

printf("\n Special characters are : ");

while((c=getc(f3))!=EOF)

printf("%c",c);

printf("\n");

fclose(f3);

printf("Total no. of lines are:%d", lineno);

}