Source File

hashcover <mathematical.header>

hashcover < exchangeInfo.header >

number main\_function LP RP

LB

!! Here identifier declaration

number num1 cm num2 sm

string str1 cm str2 sm

%&

mathematical

calculation is

given below

&%

IC LP str1 GT str2 RP

LB

num1 <- num1 ++ num2 sm

RB

OW

LB

num2 <- num2 \*\* num1 sm

RB

give 0 sm

RB

Flex(.l) File

%{

#include<stdio.h>

#include<string.h>

#include<stdlib.h>

char headerStorage[10][50];

int headerCounter=0,a=0;

int headerOperation(char \*point){

for(a=0; a<headerCounter ;a++){

if(strcmp(point,headerStorage[a])==0)

return 0;

}

strcpy(headerStorage[a],point);

headerCounter++;

}

char keyWordStorage[50][50];

int keyWordCounter=0;

int keyWordOperation(char \*point){

for(a=0; a< keyWordCounter ;a++){

if(strcmp(point,keyWordStorage[a])==0)

return 0;

}

strcpy(keyWordStorage[a],point);

keyWordCounter++;

}

char operatorStorage[50][50];

int operatorCounter=0;

int operatorOperation(char \*point){

for(a=0; a< operatorCounter ;a++){

if(strcmp(point,operatorStorage[a])==0)

return 0;

}

strcpy(operatorStorage[a],point);

operatorCounter++;

}

char identifierStorage[50][50];

int identifierCounter=0;

int identifierOperation(char \*point){

for(a=0; a< identifierCounter ;a++){

if(strcmp(point,identifierStorage[a])==0)

return 0;

}

strcpy(identifierStorage[a],point);

identifierCounter++;

}

char punctuationSymbolStorage[50][50];

int punctuationSymbolCounter=0;

int punctuationSymbolOperation(char \*point){

for(a=0; a< punctuationSymbolCounter ;a++){

if(strcmp(point,punctuationSymbolStorage[a])==0)

return 0;

}

strcpy(punctuationSymbolStorage[a],point);

punctuationSymbolCounter++;

}

char singleLineCommentStorage[50][50];

int singleLineCommentCounter=0;

int singleLineCommentOperation(char \*point){

for(a=0; a< singleLineCommentCounter ;a++){

if(strcmp(point,singleLineCommentStorage[a])==0)

return 0;

}

strcpy(singleLineCommentStorage[a],point);

singleLineCommentCounter++;

}

char multipleLineCommentStorage[50][50];

int multipleLineCommentCounter=0;

int multipleLineCommentOperation(char \*point){

for(a=0; a< multipleLineCommentCounter ;a++){

if(strcmp(point,multipleLineCommentStorage[a])==0)

return 0;

}

strcpy(multipleLineCommentStorage[a],point);

multipleLineCommentCounter++;

}

int outputFunction(){

for(a=0;a<keyWordCounter;a++)

printf("%s\n",headerStorage[a]);

printf("Total header = %d\n",headerCounter);

for(a=0;a<keyWordCounter;a++)

printf("%s\n",keyWordStorage[a]);

printf("Total keyWord = %d\n\n",keyWordCounter);

for(a=0;a<operatorCounter;a++)

printf("%s\n",operatorStorage[a]);

printf("Total operator = %d\n\n",operatorCounter);

for(a=0;a<identifierCounter;a++)

printf("%s\n",identifierStorage[a]);

printf("Total identifier = %d\n\n",identifierCounter);

for(a=0;a<punctuationSymbolCounter;a++)

printf("%s\n",punctuationSymbolStorage[a]);

printf("Total punctuationSymbol = %d\n\n",punctuationSymbolCounter);

for(a=0;a<singleLineCommentCounter;a++)

printf("%s\n",singleLineCommentStorage[a]);

printf("Total singleLineComment = %d\n\n",singleLineCommentCounter);

for(a=0;a<multipleLineCommentCounter;a++)

printf("%s\n",multipleLineCommentStorage[a]);

printf("Total multipleLineComment = %d\n\n",multipleLineCommentCounter);

return 0;

}

%}

header [^\n]+[.header][ ]\*[>]

keyWord number|string|IC|OW|give

oprator "GT"|"++"|"--"|"<-"|"\*\*"|"md"|"//"

identifier [a-zA-Z\_]+[0-9]\*

punctuationSymbol LB|RB|LP|RP|cm|sm

singleLineComment [ ]\*[!][!][a-zA-Z0-9!@#$%^&\*(){}\_+-,.:\|?>< ]\*

multipleLineComment [ ]\*[%][&][a-zA-Z0-9!@#$\*(){}\_+-,.:\|?><\n\t ]\*[&][%]

%%

{header} {headerOperation(yytext);}

{singleLineComment} {singleLineCommentOperation(yytext);}

{multipleLineComment} {multipleLineCommentOperation(yytext);}

{operator} {operatorOperation(yytext);}

{punctuationSymbol} {punctuationSymbolOperation(yytext);}

{keyWord} {keyWordOperation(yytext);}

{identifier} {identifierOperation(yytext);} {}

%%

int yywrap(){

return 1;

}

int main(){

freopen("input2.txt","r",stdin);

yylex();

freopen("out2.txt","w",stdout);

outputFunction();

return 0;

}

Output File

hashcover <mathematical.header>

hashcover < exchangeInfo.header >

Total header = 2

number

string

IC

OW

give

Total keyWord = 5

GT

<-

++

\*\*

Total operator = 4

num1

num2

str1

str2

Total identifier = 5

LP

RP

LB

cm

sm

RB

Total punctuationSymbol = 6

!! Here identifier declaration

Total singleLineComment = 1

%&

mathematical

calculation is

given below

&%

Total multipleLineComment = 1