ABHINAND K PRASAD

S7 CSA

ROLL NO: 4

%{

#include<stdio.h>

#include<string.h>

char key[100][100], head[100][100], dig[100][100], op[100][100], id[100][100], lit[100][100];

int i=0, j=0, k=0, l=0, a=0, b=0, c=0, d=0, m=0, n=0, sz=0, count=0;

%}

KW "int"|"while"|"if"|"else"|"for"|"char"|"float"|"case"|"switch"|"printf"|"scanf"|"void"

HF "#include<".\*">"

OP "+"|"-"|"\*"|"/"|"="

DIG [0-9]\*|[0-9]\*"."[0-9]+

ID [a-zA-Z][a-zA-Z0-9]\*

LI "\"".\*"\""

%%

{KW} { strcpy(key[i], yytext); i++; }

{HF} { strcpy(head[j], yytext); j++; }

{DIG} { strcpy(dig[k], yytext); k++; }

{OP} { strcpy(op[sz], yytext); sz++; }

{ID} { strcpy(id[n], yytext); n++; }

{LI} { strcpy(lit[count], yytext); count++; }

. {}

%%

int main() {

yyin = fopen("input.txt", "r+");

yylex();

printf("\nThe keywords:\n");

for (b = 0; b < i; b++) {

for (m = b + 1; m < i; m++) {

if (strcmp(key[b], key[m]) == 0) {

for (c = m; c < i - 1; c++) {

strcpy(key[c], key[c + 1]);

}

i--;

m--;

}

}

}

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

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

}

printf("\nThe header files:\n");

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

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

}

printf("\nThe digits:\n");

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

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

}

printf("\nOperators:\n");

for (b = 0; b < sz; b++) {

for (m = b + 1; m < sz; m++) {

if (strcmp(op[b], op[m]) == 0) {

for (c = m; c < sz - 1; c++) {

strcpy(op[c], op[c + 1]);

}

sz--;

m--;

}

}

}

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

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

}

printf("\nIdentifiers:\n");

for (b = 0; b < n; b++) {

for (m = b + 1; m < n; m++) {

if (strcmp(id[b], id[m]) == 0) {

for (c = m; c < n - 1; c++) {

strcpy(id[c], id[c + 1]);

}

n--;

m--;

}

}

}

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

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

}

return 0;

}

int yywrap() {

return 1;

}

**INTPUT**

#include<stdio.h>

void main()

{

int a, b, sum;

a = 10;

b = 20;

sum = a + b;

printf("Sum is : %d", sum);

}

**OUTPUT**

A computer screen shot of a black screen

Description automatically generated