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#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<ctype.h>

int isKeyword(char buffer[]){
    char keywords[32][10] = {"auto","break","case","char","const","continue","default",
                             "do","double","else","enum","extern","float","for","goto",
                             "if","int","long","register","return","short","signed",
                             "sizeof","static","struct","switch","typedef","union",
                             "unsigned","void","volatile","while"};

    int i, flag = 0;

    for(i = 0; i < 32; ++i){
        if(strcmp(keywords[i], buffer) == 0){
            flag = 1;
            break;
        }
    }

    return flag;
}

int main(){
    char ch, buffer[15], operators[] = "+-*/%=";
    FILE *fp;
    int i,j=0;

    fp = fopen("program.txt","r");

    if(fp == NULL){
        printf("error while opening the file\n");
        exit(0);
    }

    while((ch = fgetc(fp)) != EOF){
        for(i = 0; i < 6; ++i){
            if(ch == operators[i])
                printf("%c is operator\n", ch);
        }

        if(isalnum(ch)){
            buffer[j++] = ch;
        }
        else if((ch == ' ' || ch == '\n') && (j != 0)){
            buffer[j] = '\0';
            j = 0;

            if(isKeyword(buffer) == 1)
                printf("%s is keyword\n", buffer);
            else
                printf("%s is identifier\n", buffer);
        }
    }
}

```

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fclose(fp);  
return 0;  
}
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