```c
/*******************************************************************************
/
/        filename:  wc.c
/
/    description:  This program is to mimic the wc program with the
/                         -lwc options.
/
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/       login id:  cps444-01.16
/
/          class:  CPS 346
/     instructor:  Perugini
/     assignment:  Homework #2
/
/        assigned:  January 21, 2009
/            due:  January 28, 2009
/
/*******************************************************************************/
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<stdbool.h>

void wordCounts(bool w, bool L, bool b, int words, int ch, int lines, FILE* ifs,
        int *tl, int *tc, int *tw)
{
    char c, p=' ';
    int count = 0;
    while((c=getc(ifs))!=EOF){
        ch++;
            (*tc)++;
        if(c=='\n'){
            if (p!=' ' && p!='\t' && p!= '\n'){
                words++;
                (*tw)++;
            }
            lines++;
            (*tl)++;
        }
        else if(c=='\t' && (p!=' ' && p!='\t' && p!= '\n')){
            words++;
            (*tw)++;
        }
        else if(c==' ' && (p!=' ' && p!='\t' && p!='\n')){
            words++;
            (*tw)++;
        }
        p = c;
    }
    if(p!=' ' && p!='\t' && p!='\n'){
        words++;
        (*tw)++;
    }
    if(L){
        fprintf(stdout, "\t%d", lines );
    }
    if(w){
        fprintf(stdout, "\t%d", words );
    }
    if(b){
        fprintf(stdout, "\t%d", ch);
    }
    if(!L && !w && !b){
        fprintf(stdout,"\t%d\t%d\t%d", lines, words, ch);
    }
}


int main (int argc, char** argv) {
```

```c
    char c,p=' ';
    int words=0, lines=0;
    int tl=0,tc=0,tw=0;
    int  count = 0,k, j, len, ch = 0;
    bool L=false,w=false,b=false;
    FILE* ifs;
    if(argc>=1){
        for(k = 1;(k< argc); k++){
            len = strlen (argv[k]);
            if(argv[k][0]=='-'){
                for (j = 1; j < len ; j++){
                    if(argv[k][j]=='l'){
                        L = true;
                    }
                    else if(argv[k][j]=='w'){
                        w = true;
                    }
                    else if(argv[k][j]=='c'){
                        b = true;
                    }
                    else{
                        fprintf(stderr,  "wc: invalid option -- %c \n", argv[k][j]);
                        fprintf(stderr,  "Try 'wc --help' for more information. \n", argv[k][j]);
                        return 1;
                    }
                }
            }
            else{
                if(fopen(argv[k],"r")!= NULL){
                    ifs = fopen(argv[k],"r");
                    wordCounts(w,L,b,words,ch,lines,ifs,&tl,&tc,&tw);
                    fprintf(stdout, "%s \n", argv[k]);
                    count++;
                }
                else{
                    fprintf(stderr,  "wc: %s: No Such File or Directory. \n", argv[k]);
                    return 1;
                }
            }
        }
        if(count==0){
         wordCounts(w,L,b,words,ch,lines,stdin,&tl,&tc,&tw);
         fprintf(stdout, "\n" );
        }
    }
    else{
        wordCounts(w,L,b,words,ch,lines,stdin,&tl,&tc,&tw);
        fprintf(stdout, "\n" );
    }
    if(count > 1){
        if(L){
            fprintf(stdout, "\t%d ", tl);
        }
        if(w){
            fprintf(stdout, "\t%d ", tw);
        }
        if(b){
            fprintf(stdout, "\t%d ",tc);
        }
        if(!b && !w && !L){
            fprintf(stdout, "\t%d\t%d\t%d ", tl, tw, tc);
        }
        fprintf(stdout, " total \n" );
    }
    return 0;
}
```