```
#include <iostream>
#include <cstdlib>
#include <sys/types.h>
#include <sys/stat.h>
#include <fcntl.h>
#include <unistd.h>
#include <clocale>
#include <cstring>
#include <cwchar>

using namespace std;

bool w; //bytes
bool m; //new line entries
bool c; // characters
bool l; // words

int characterTotal;
int wordsTotal;
int bytTotal;
int nwlnTotal;
int tempargc;
void wc(const char * filename);

int main(int argc, char * argv[]){
  //  int t{};
  tempargc = argc;
  std::setlocale(LC_ALL, "en_US.utf8");
  int h = 0;
  cout.setf(ios::unitbuf);
  char  buf[900];
  //int s{};
  int j{};

  while((j = getopt(argc, argv, "clmw")) != -1){
    switch(j){
    case 'c':
      c = true;
      break;
    case 'l':
      l = true;
      break;
    case'm':
      m= true;
      break;
    case 'w':
      w = true;
      break;
    default:
      return EXIT_FAILURE;
    }
  }
```

```
  for(unsigned int i =0; i <sizeof(buf); i++){
    buf[i] = '\0';
  }

       wc((char*)argv[argc-1]);
      h++;


  cout << "The number of files is " << h << "\n";
  return EXIT_SUCCESS;
}

void wc(const char * filename){

  int byt = 0;
  int words = 0;
  int nwln = 0;
  int totalBytes = 0;
  char  buffer[1];
  enum states { WHITESPACE, WORD };
  int state = WHITESPACE;
  int g{};
  //int fd;
  int chr = 0;
  char sp = ' ';

    g = (open(filename, O_RDWR));
      if (g == -1){
        perror("wc");
        cout << "can not find " << filename << endl;
      }
      else{

        while((1 == (read(g, buffer, 1)))){
            chr++;
            byt++;
            if( buffer[0]== ' ' || buffer[0] == '\t'){
            state = WHITESPACE;
            }
            else if (buffer[0]== '\n'){
            nwln++;
            state = WHITESPACE;
            }
            else{
            if ( state == WHITESPACE){
              words++;
            }
            state = WORD;
            }
            sp = buffer[0];

        }
      }
```

```
      if(c){//this should be the changed one b/c of weird characters
        cout << byt  << " ";
        bytTotal += byt;
      }
      if(l){
        cout << nwln << " ";
        nwlnTotal =+ nwln;
      }
      if(m){//number of characters
        cout << chr << " ";
         characterTotal =+ chr;
      }
      if(w){
        cout << words << " ";
        wordsTotal =+ words;
      }
      else{ // take from standard input

      }
      cout << filename << endl;
}
```