

Re: multimap help

Source: <http://coding.derkeiler.com/Archive/C/ CPP/alt.comp.lang.learn.c-cpp/2004-11/0724.html>

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"iwasinnihon" <iwasinnihon@hotmail.com> wrote in message
news:41a7f626\$0\$19042\$3a2ecee9@news.csolutions.net...

> *I was wondering if anyone new or had example code that uses a multimap (or
> just a map). I have been looking for some and haven't really been
> successful. If anyone knows where I can find one if you'd let me know I'd
> appreciate it.*
>
> *Thanks*

Using a `std::map` to store counts of occurrences of
each character value in a string:

```
#include <iomanip>
#include <iostream>
#include <map>
#include <ostream>
#include <string>
```

```
void tally(std::map<char, std::string::size_type>&m, const std::string& s)
{
    m.clear();
    std::string::size_type i(0);
    std::string::size_type sz(s.size());

    for(i = 0; i < sz; ++i)
        ++m[s[i]];
}
```

```
void show(std::ostream& os, const std::map<char, std::string::size_type>& m)
{
    os << "char count\n";

    std::map<char, std::string::size_type>::const_iterator it(m.begin());
    std::map<char, std::string::size_type>::const_iterator en(m.end());

    while(it != en)
    {
```

```
    os << " " << it->first << " " << std::setw(5) << it->second <<
    '\n';
    ++it;
}
}

int main()
{
    std::string s("This is a string of characters");
    std::map<char, std::string::size_type> counts;

    std::cout << "string:\n" << s << "\n\n";
    tally(counts, s);
    show(std::cout, counts);

    return 0;
}
```

Output:

string:

This is a string of characters

char count

```
    5
T 1
a 3
c 2
e 1
f 1
g 1
h 2
i 3
n 1
o 1
r 3
s 4
t 2
```

Book recommendation for C++ standard library:
www.josuttis.com/libbook

-Mike