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#include <algorithm>
#include <iostream>
#include <iterator>
#include <vector>
#include <cctype>

using namespace std;

struct Student {
    const int id;
    const string first;
    const string last;

    Student(int id, string first, string last) : id(id), first(first), last(last) {}
};

int main() {
    vector<int> numbers {1, 2, 3, 4, 5, 5, 5, 6, 7, 8, 8};
    vector<Student> students;

    students.emplace_back(0, "James", "Slocum");
    students.emplace_back(1, "John", "Smith");
    students.emplace_back(2, "Brian", "Richards");
    students.emplace_back(3, "Tina", "Blake");

    cout << "There are " << count(begin(numbers), end(numbers), 5) << " 5s in the vector\n";

    int sCount = count_if(begin(students), end(students), [](const Student& s) {
        return (tolower(s.last.c_str()[0]) == 's');
    });

    cout << sCount << " Students have a last name with 'S'\n";

    return 0;
}
```