

Lab #8
① Expo questions
* get turned in during lab
② RPS Game
③ testing

* I will update test scores

CS 162



Intro to CS II

* MeCap,
selection event
Wed 20th

Intro to C Programming

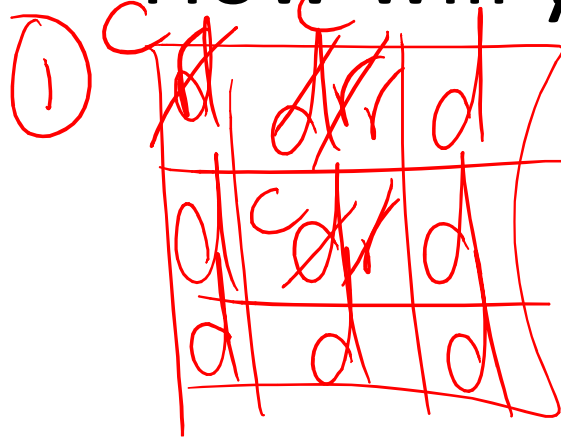
— No
office hours

Assignment #4

- Get into groups of 4-5.
- How will you fill the vector of vectors? 
- How will you know if you have visited all cells in the floor plan? 

```
1 #include <vector>
2 #include <iostream>
3
4 using namespace std;
5
6 int main() {
7     vector <vector<char> > v;
8     vector <char> temp;
9
10    temp.push_back('d');
11    temp.push_back('d');
12    temp.push_back('d');
13    temp.push_back('d');
14    v.push_back(temp);
15    temp.clear();
16
17    temp.push_back('d');
18    temp.push_back('d');
19    temp.push_back('d');
20    temp.push_back('d');
21    v.push_back(temp);
22    temp.clear();
23
24    cout << "rows: " << v.size() << endl;
25    cout << "cols: " << v[0].size() << endl;
26
```

How will you know floor is cleaned?



← takes more memory but leaving original

② member that keeps track of how many cleaned cells.

{ $n \times m$ cells to clean if no obj. on floor

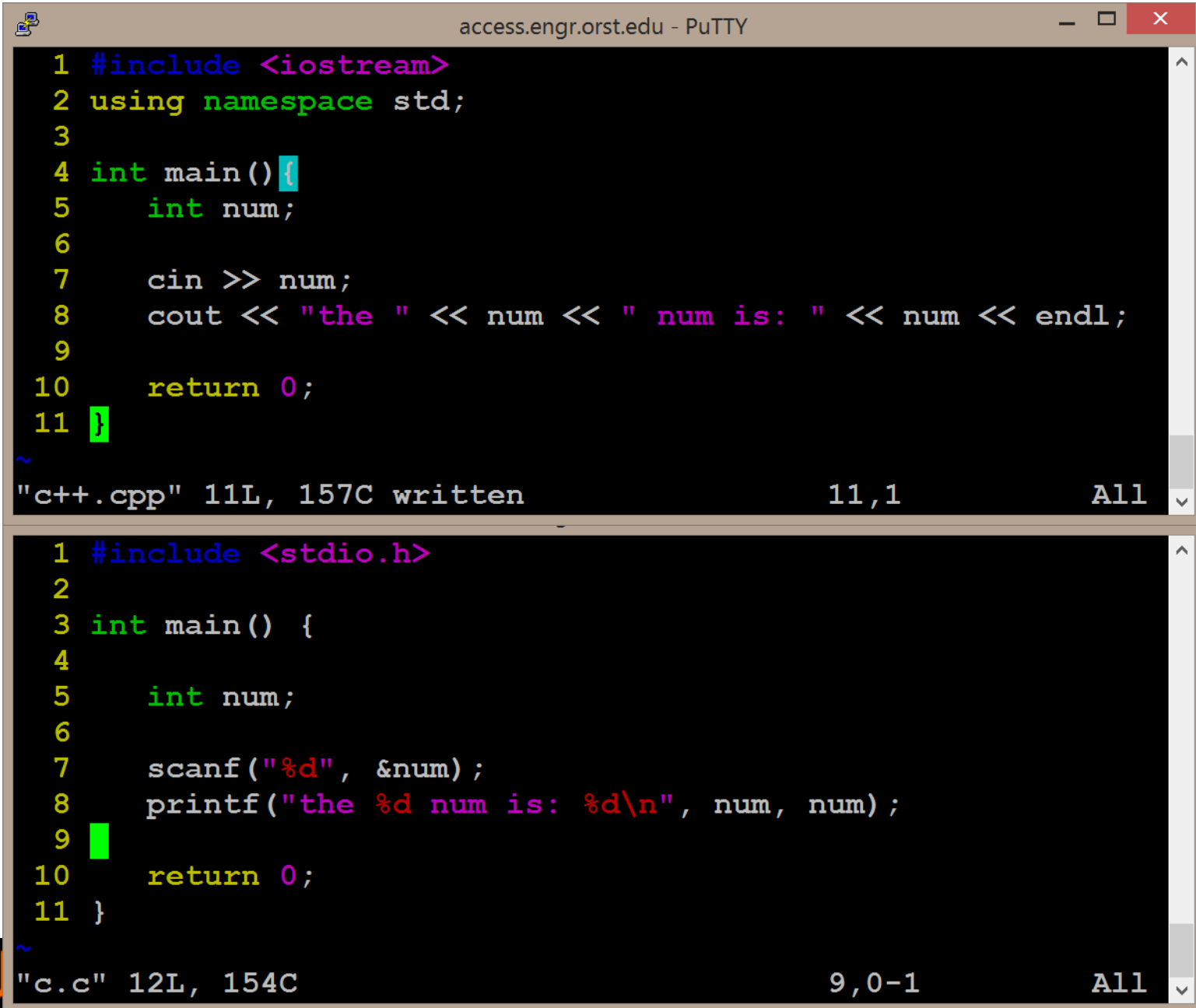
C/C++ Differences

- Biggest???
- Semantics
 - Only one meaning of & (address of)
- Syntax
 - Libraries (.h)
 - Location of variable declaration (-std=c89 -pedantic)
 - Input/Output (scanf()/printf())
 - Structs
 - Dynamic Memory (malloc()/free())
 - File I/O (file pointer)

not oo / no classes !!!

No pass by reference

C vs. C++ Libraries, variables, and input



The image shows two screenshots of a PuTTY terminal window titled "access.engr.orst.edu - PuTTY". The top screenshot displays C++ code for reading an integer from standard input. The bottom screenshot displays C code for the same task, using `scanf` and `printf`. Both programs declare an `int` variable named `num` and return 0 at the end of the `main` function.

```
1 #include <iostream>
2 using namespace std;
3
4 int main(){
5     int num;
6
7     cin >> num;
8     cout << "the " << num << " num is: " << num << endl;
9
10    return 0;
11 }
```

~
"c++.cpp" 11L, 157C written 11,1 All

```
1 #include <stdio.h>
2
3 int main() {
4
5     int num;
6
7     scanf("%d", &num);
8     printf("the %d num is: %d\n", num, num);
9
10    return 0;
11 }
```

~
"c.c" 12L, 154C 9,0-1 All