CS 161, Lecture 5: Strings – 22 January 2018

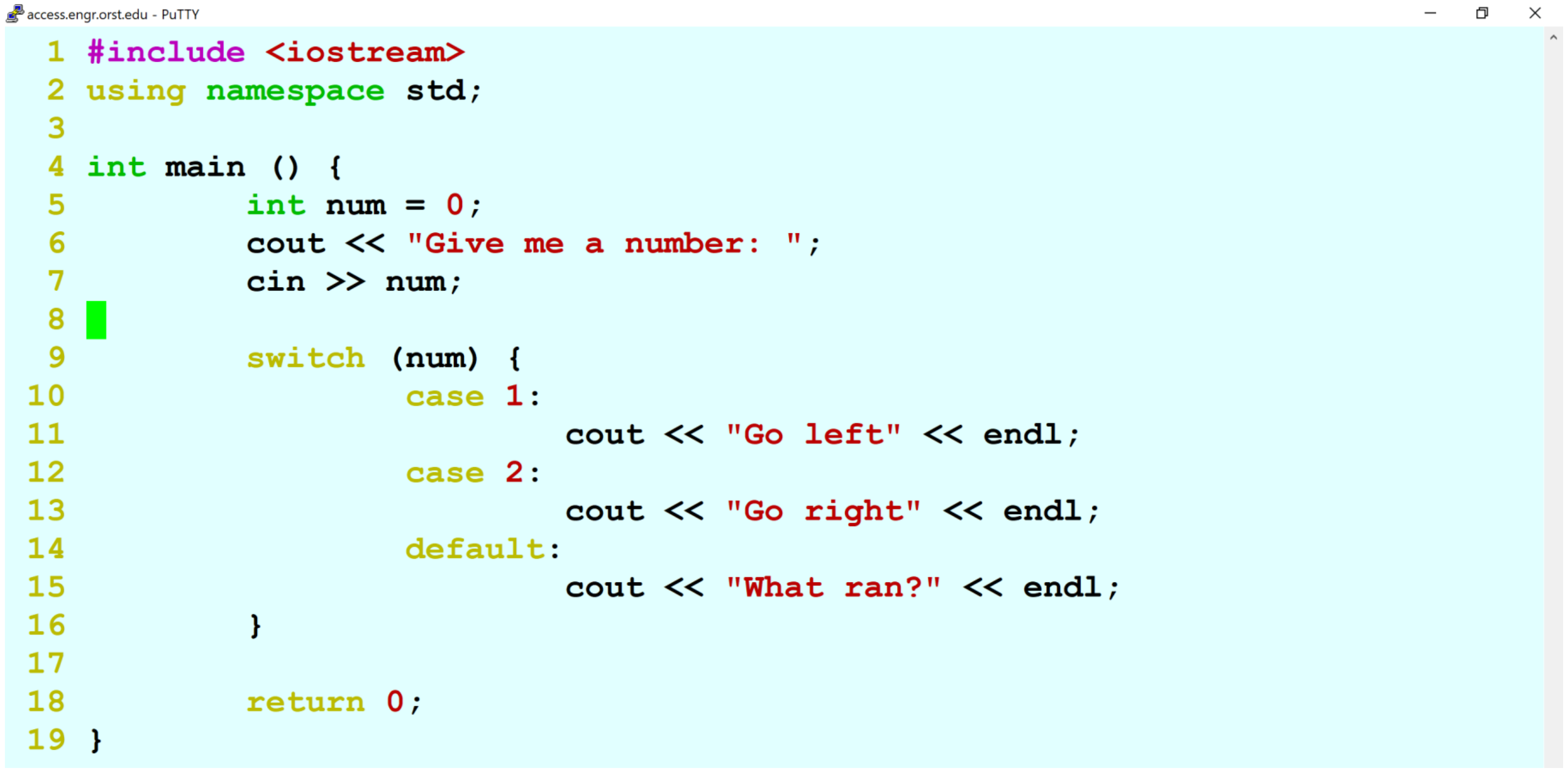
AND STARTING TODAY, ALL PASSWORDS MUST CONTAIN LETTERS, NUMBERS, DOODLES, SIGN LANGUAGE AND SQUIRREL NOISES.

Review Exercise

- Define:
  - Variable
  - Primitive Types
  - Conditional
  - Relational operator
- True/False
  - if(x = 34) tests to see if x is equal to 34
  - The number of bytes of memory used by a variable depends on its value.
  - A memory address is where a variable is stored.

Review Exercise

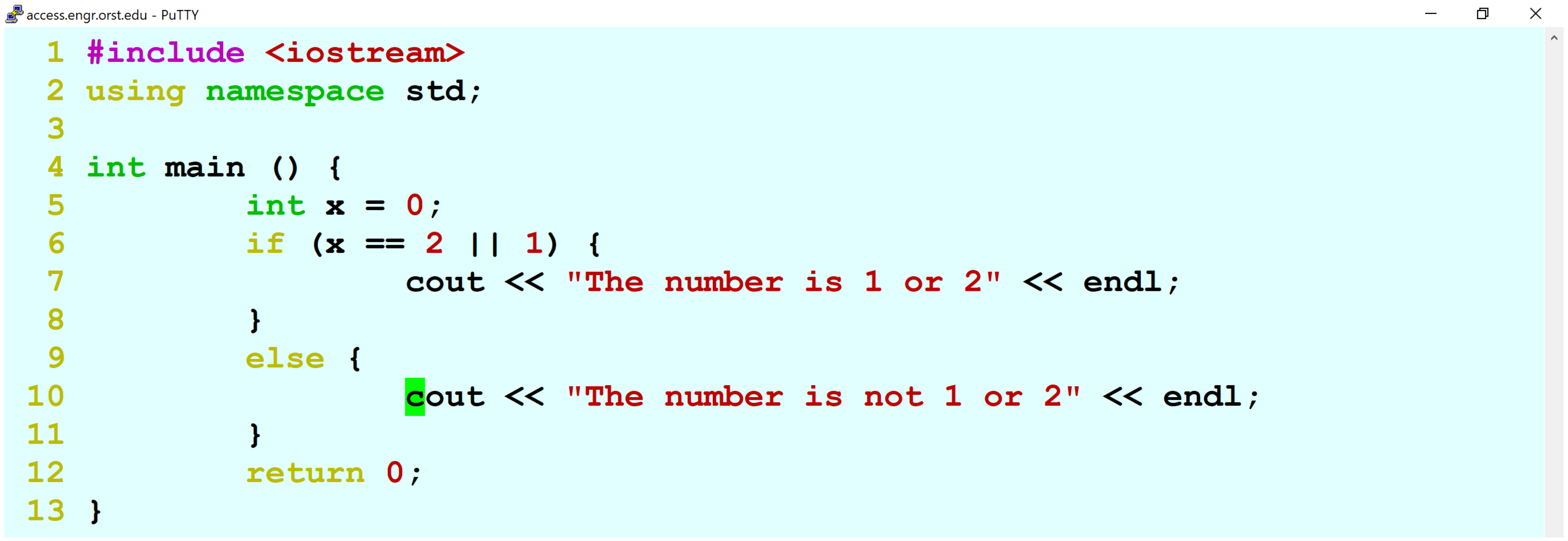
- If the user provides 1, what will print to the screen?


access.engr.orst.edu - PuTTY

```
#include <iostream>
using namespace std;

int main () {
        int num = 0;
        cout << "Give me a number:  ";
        cin >> num;

        switch (num) {
                case 1:
                        cout << "Go left" << endl;
                case 2:
                        cout << "Go right" << endl;
                default:
                        cout << "What ran?" << endl;
        }

        return 0;
}
```

Review Exercise

- What does this code output?



```
#include <iostream>
using namespace std;

int main () {
        int x = 0;
        if (x == 2 || 1) {
                cout << "The number is 1 or 2" << endl;
        }
        else {
                cout << "The number is not 1 or 2" << endl;
        }
        return 0;
}
```

String

- C++ style strings are objects (revisit in 162)
- Come from <string>
- Allows us to take in more than numbers or single entities
- Examples:
  - “Hello world” ->

H	**e**	**l**	**l**	**o**		**W**	**o**	**r**	**l**	**d**

  - “123 456 789”
  - “a b C”

Use getline

- There are two getline functions
  - <string> getline -> takes the istream, takes the string variable, extracts until delimiter or \n (newline)
  - <istream> getline -> c-string (week 7?)
- Use the one in the <string> library
- Example

```
string my_str = “”;
cout << “Give me a string: “;
getline(cin, my_str);
```

Why are strings cool?

- Most user interfaces don’t operate purely on numbers
- Can store more info (baby step into arrays -> week 6)
- Can do more interesting things such as error handle
- It’s an object so more functionality

Demo