

# Pointers

- every variable has an address
  - you can think of a computer's memory like a street with a bunch of vacant lots
  - when you define a variable in your program, the computer finds an unused address in memory and reserves it for your variable
  - amount of space reserved depends on variable type
  - the address is defined to be **the lowest address in memory where the variable is stored**

```
1 // Class Challenge
2
3 void swap(int* a, int* b) {
4     int temp = *a;
5     *a = *b;
6     *b = temp;
7 }
```