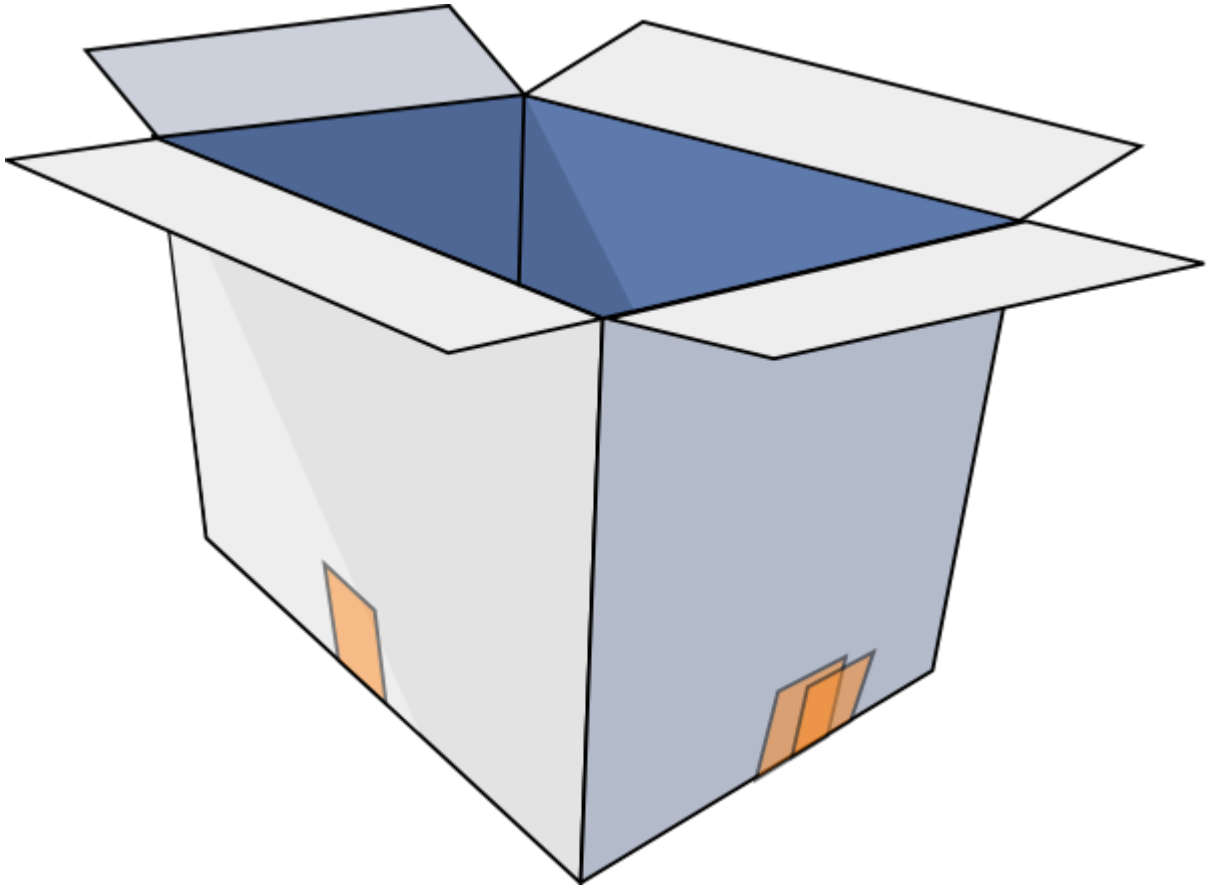
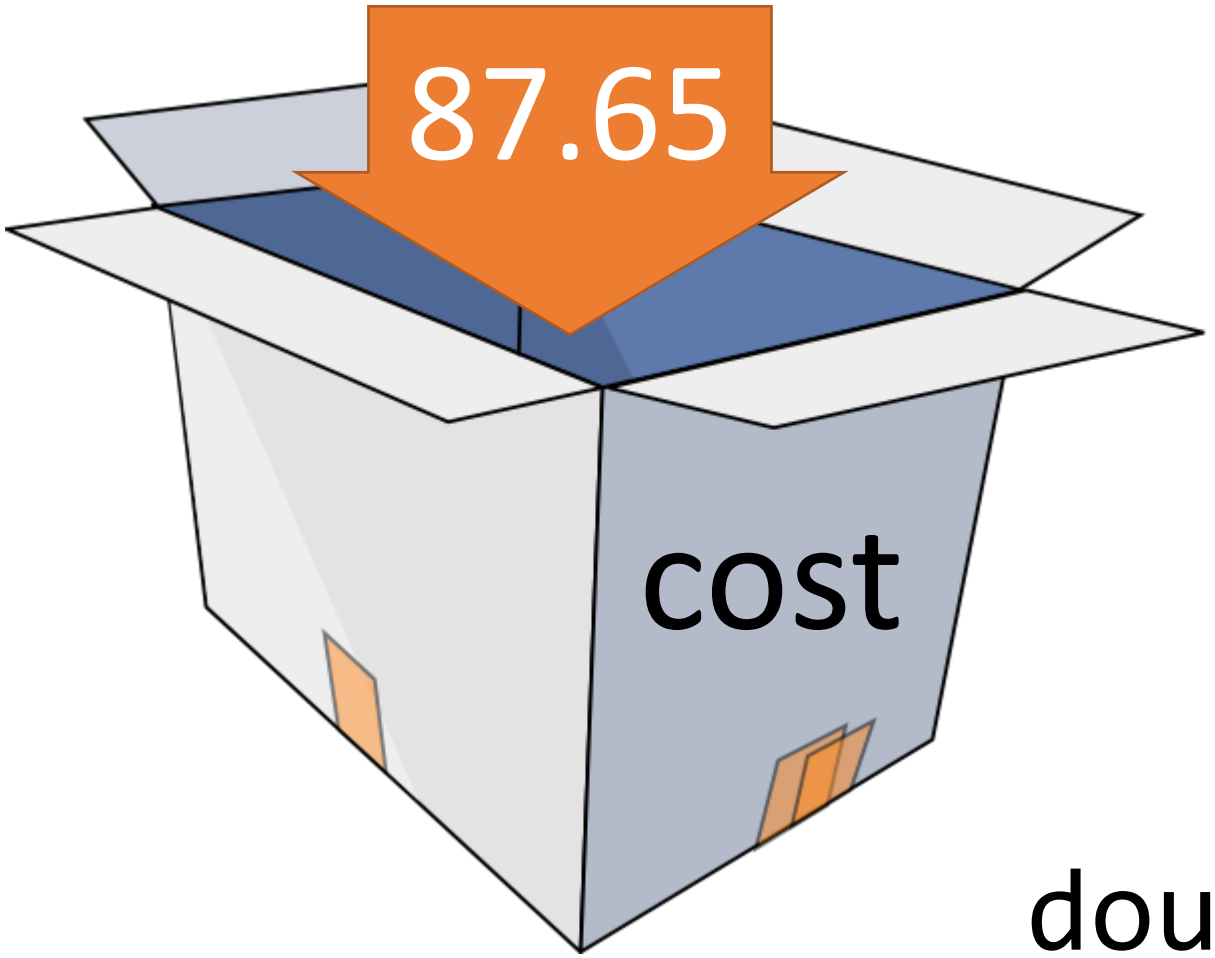
Variables & Types

Which type? Which name?



A variable is used in programming to store a value until we need it again.

It is sort of like a box.



Variables have names so that you can call them again in your code.

```
double cost = 87.65;
```

Java variables have types:

Types

- A type is a kind of data – for example, words are text.
- A type is also an amount of RAM allocated to a variable.
- A type is also the kinds of operations that can be done with a variable.

The Types

- in order of size. (Smallest to largest)

```
boolean – true or false
char – single characters, for example: ‘a’
int  – integers, for example: -2, 0, 67
double – decimals, for example: 2.0, 3.123
String – text, for example: “Hello”
```

Example	Type?
apple	boolean int String
false	boolean int String
567	boolean int String
-3	boolean int String
true	boolean int String
b	boolean int String
agorski@peelsb.com	boolean int String
905-453-9220	boolean int String

Example	Type?
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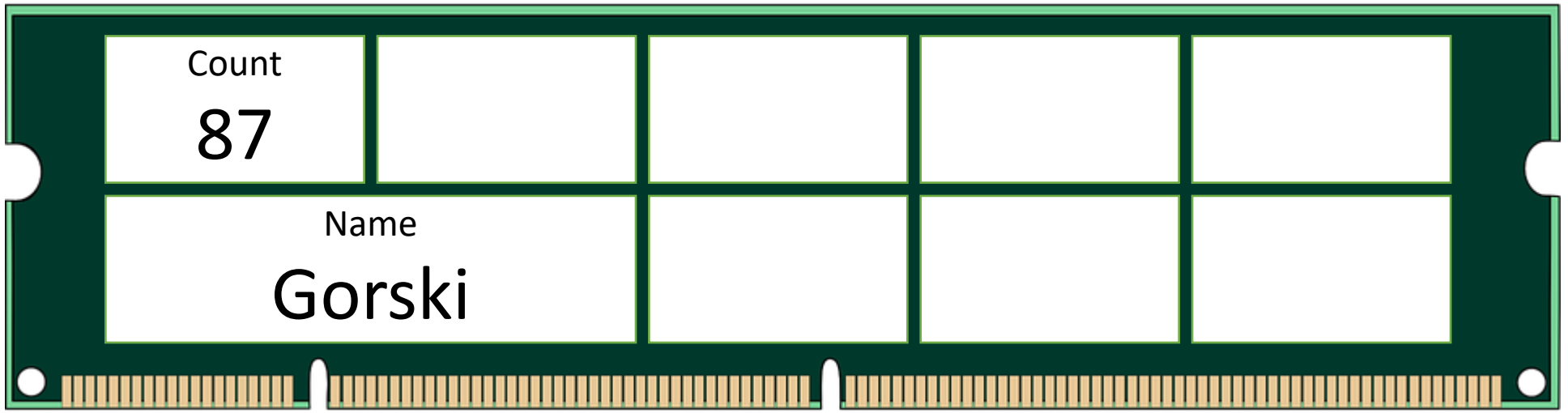
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905-453-9220	boolean int String




```
int count = 87;

String name = “Gorski”;
```

A variable is a space in RAM.
It has a name, a value, and a type.

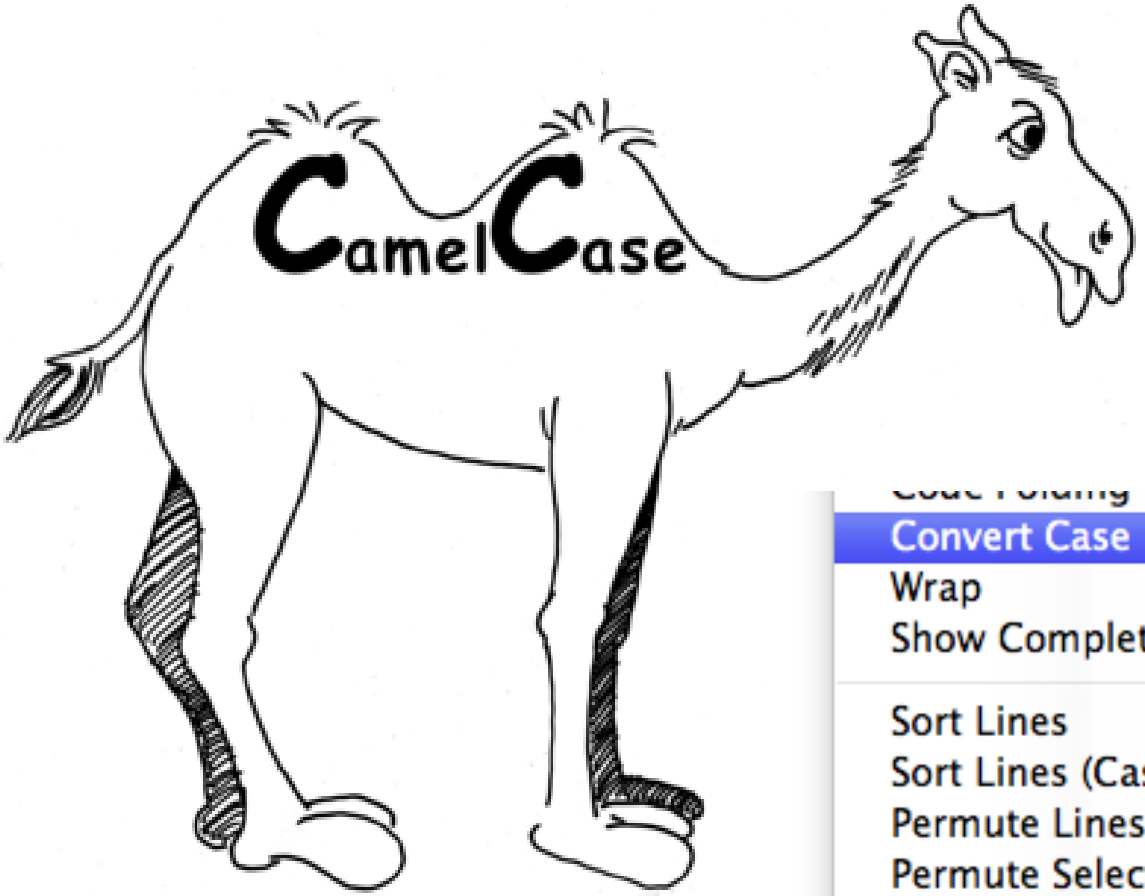
Its value can change whenever you want. Its name and type cannot.

Variable Naming Rules:

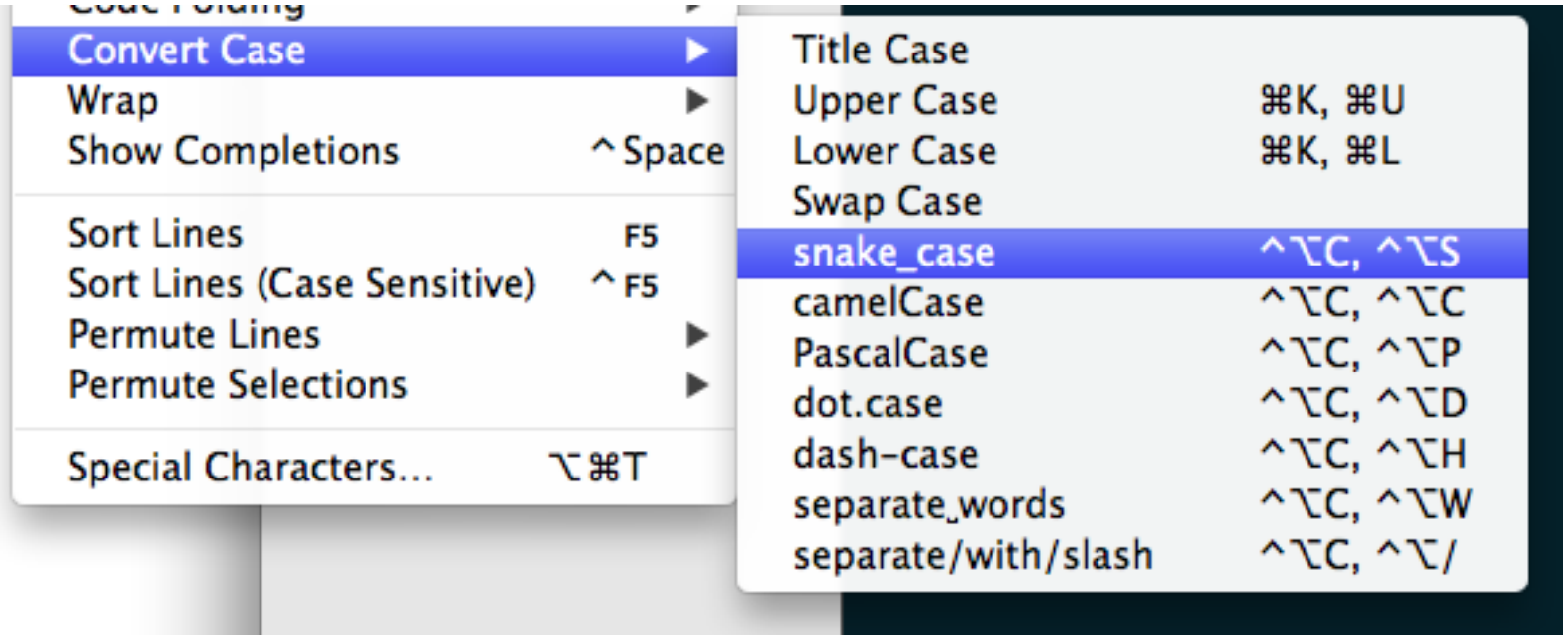
Because variables are used in the code, they have be named carefully so the computer can understand.



1. No spaces. Camel case or underscores are fine.
2. Meaningful is easier in the long run.
3. Cannot start with a number. Otherwise, numbers are fine.
4. Cannot contain odd characters.
5. Cannot contain reserved words. (eg. public or main). These already have a purpose in java.


CamelCase


iPod


Convert Case
Wrap
Show Completions ^Space
Sort Lines F5
Sort Lines (Case Sensitive) ^F5
Permute Lines
Permute Selections
Special Characters... ⌥⌘T
Title Case
Upper Case ⌘K, ⌘U
Lower Case ⌘K, ⌘L
Swap Case
snake_case ^⌥C, ^⌥S
camelCase ^⌥C, ^⌥C
PascalCase ^⌥C, ^⌥P
dot.case ^⌥C, ^⌥D
dash-case ^⌥C, ^⌥H
separate words ^⌥C, ^⌥W
separate/with/slash ^⌥C, ^⌥/

Which are valid variable names?

2many	impt*
T or F	tallTree
yOrN?	chicken

Naming Rules

1. No spaces.
2. Meaningful.
3. Cannot start with a number.
4. Cannot contain odd characters.
5. Cannot contain reserved words.