

CODAPPS

Coding Cheatsheet

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1. Variables and objects

General rules:

- The type of the variable (String, Long, Boolean...) start with a capital letter.
- variable names start without a capital letter.

String variables store text

Creating a String variable and giving it a value

```
String title = "Welcome to my app"; ①
```

① Don't forget the double quotes " "!

Integer variables store round numbers

Creating an Integer variable and giving it a value

```
Integer classSize = 32;  
int anotherClassSize = 25; ①
```

① `int` is like `Integer`. It takes less memory but is sometimes less convenient to use. Also, note: no double quote!! Double quotes are just for `String`.

Float and Double variables store decimals

Double is like Float but can store decimals with a lot more precision

Creating Float and Double variables

```
Float pi = 3.14f; ①  
Double piVeryPrecise = 3.141592653589793238462643383279502884197169d; ②
```

① Don't forget the `f` letter at the end of your number. `float` or `Float` can be used, `float` takes less memory than `Float`.

② Don't forget the `d` letter at the end of your number. `double` or `Double` can be used, `double` takes less memory than `Double`.

Long stores big round numbers

Long is like *Integer* but can store **bigger numbers**

Creating a Long variable

```
Long millisecondsSinceLastMonth = 3644340304304141; ①
```

- ① Don't forget the **l** letter at the end of your number. **long** or **Long** can be used, **long** takes less memory than **Long** but can be inconvenient to use.

Boolean stores true / false values

This seems not very useful but actually we use it quite often

Creating a Boolean variable

```
Boolean hasAStudentCard = true; ①
```

- ① A classic mistake is to write "true" (with double quotes, which is incorrect). Boolean values are **true** or **false** without double quotes ". **boolean** can be used instead of **Boolean**: less memory but also less convenient to use in some cases.

Objects: to create and store a variety of things

A variety of objects exist - use them to create and store things

Creating an Object storing a Date

```
Date dateStartOfTheGame; ①  
dateStartOfTheGame = new Date(); ②  
Date dateEndOfTheGame = new Date(); ③
```

- ① An object **dateStartOfTheGame** of type **Date** is declared. It is **null** at the moment.
② **dateStartOfTheGame** is instantiated: an instance of it is created.
③ Shortcut: a variable can be declared and instantiated in one line of code.