

# CODAPPS

## *Coding Cheatsheet*

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Version 1.0, last modified

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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.