

About

A pixelated lightbulb icon with a black outline and a black base. The bulb is filled with a grid of colored pixels in yellow, red, purple, blue, and green.

SMALLTALK TUTORIAL

A social approach to smalltalk learning

<http://smalltalktutorial.herokuapp.com/>

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What is it?

Smalltalk Tutorial is a web-page written with the support of the program Google Summer of Code 2012.





Why is it important?

Actually smalltalk community don't have a place in the social networks where to promote their language to new coders, that's what SmalltalkTutorial is trying to solve.





Who is intended for?

Smalltalk Tutorial is intended for young coders who have at least a little experience in Object Oriented programming languages.



What isn't SmalltalkTutorial

It is NOT an Object Oriented programming tutorial nor an OO design tutorial, it is a place where to learn Smalltalk syntax and features.





Features

- Integration, login and sharing with three social network APIs.
- Progress tracking of individuals.
- Twenty (For the moment) lessons explaining the basics of Smalltalk.



Social Networks

Smalltalk Tutorial provides login and sharing with this social networks:

- Facebook
- Twitter
- G+



Why those three?

Because those are the more used by the target of users our tool is intended for, also they provide a clear and easy to use API that gives us all the info we need about them with their permission.



Progress Tracking

You can leave Smalltalk Tutorial after doing some lessons and come back when you have time to do more.



What DB?

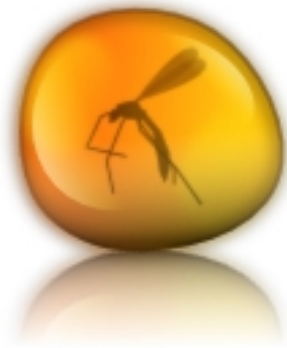
SmalltalkTutorial makes use of a MySQL database, that stores just needed info and nothing more. Actually it is provided by ClearDB.





Lessons

The tutorial lesson widget is implemented in Amber, it provides us of a web embedded workspace and Class browser that's ideal for this!



Amber

Smalltalk brought to the web



Evaluating Expressions

The first three lessons of Smalltalk tutorial explain the user how to evaluate a smalltalk expression and the correct usage of the three ways of doing it.

- Dolt
- PrintIt
- InspectIt



Precedence Rules

The following four lessons are about precedence rules, we explain what type of messages you can find in smalltalk and it's precedence, also we teach usage of parentheses to change it.

- Unary Messages
- Binary Messages
- Keyword Messages
- Parentheses Usage



Block Closures

Three lessons about block closures and their uses.

- Block Closures
- Block with Parameters
- IfTrue: ifFalse:



Smalltalk Collections

Then we feature three lessons about Smalltalk Collections and its differences.

- Array (Dynamically and statically defined)
- Set
- Dictionary



Collection Messages

Four lessons about collections messages teaching the more abstract ones.

- do:
- collect:
- select: and reject:
- inject: into:



Class Browser

The last three lessons are about class and method creating.

- Classes
- Instance Methods
- Class Methods
- Inheritance
- Class Browser usage



Why in this order?

The order of the lessons is mildly inspired by the “Universidad Nacional de Quilmes” program in “Objetos I” class which I am part of the staff.





Tools and Frameworks



Amber
Smalltalk brought to the web



EJS

<% Embedded JavaScript %>





Screenshots

SMALLTALK TUTORIAL

Welcome to Smalltalk Tutorial!

In this Web 2.0 age there are many things that can be done interacting just with a web browser, even learning a programming language.

The goal of this project is to have a site used for anyone who wants to start to learn Smalltalk in an interactive and challenging way.

In the following tutorial you will learn the basics of Smalltalk, it's a great starting point for newcomers to this programming language.

Please login with any of the following:


Spread the word!

Welcome screen



Screenshots

SMALLTALK TUTORIAL   Facundo Mainere ([log out](#))

Lesson 20


A Class method is what a Class can do, we generally use it for constructing instances of a Class, to create one is similar to an instance method, but choosing the Class tab.

Create a class method "bornWithName:withOwner:" that takes as argument the name of the cat and its owner, it returns a cat with its owner and its name assigned (Tip: use the message "bornWithName:" and "owner:", don't forget to return it)

```
1 david:= Person bornWithName: 'David'.  
2 mrnoodles:= Cat bornWithName: 'MrNoodles' withOwner:david.  
3 mrnoodles.
```

[Dolt](#) [Printit](#) [Inspectit](#) [Class Browser](#)

Spread the word!

[f Share](#) [TweeT](#) [+1](#)  You

Lesson widget



Screenshots

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Lesson 20

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3 mrnoodles.
```

A screenshot of the Smalltalk IDE's Class Browser window. The window title is "Browser (nil)". The left sidebar shows a tree view of classes, with "Benchfib" selected. The main area shows the source code for the "Benchfib" class, with the "Instance" tab selected. The code defines a subclass of "Object" with instance variables and a package name.

Transcript Workspace SUnit x Browser (nil) +

Benchfib
Canvas
Compiler
Examples
Exercises
IDE
Kernel-Announcements
Kernel-Classes
Kernel-Collections
Kernel-Exceptions
Kernel-Methods

Commit Rename Remove Instance Class Comment

```
1 Object subclass: #NameOfSubclass
2   instanceVariableNames: ''
3   package: 'Benchfib'
```

Save Dolt Printt Inspectt

Class Browser



Furtherwork

- Achievement system
- Better Lesson creation API
- Full Amber Migration
- More Lessons!



Team

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