SEDNOVE
Sncode/Extenso

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Version 1.4 : 2020-07-03

Course #1

Contents

- Introduction
- Sednove
- Extenso - Sncode
- Architecture
- Sncode programming

About this course

- Introduction to programming in Sncode
- Goal: Enable non-programmers to learn how to program, in particular with Sncode and Extenso
- What you will learn:

    - Sncode
    - Extenso
    - HTML
    - CSS
    - Javascript
    - Jquery
    - Ajax
    - Websocket
    - WebRTC

About this course

- keep your personnal question for later with me directly
- this is an introduction course not an advanced course.
- the course is recorded
- if you have a question, please raise your hand first
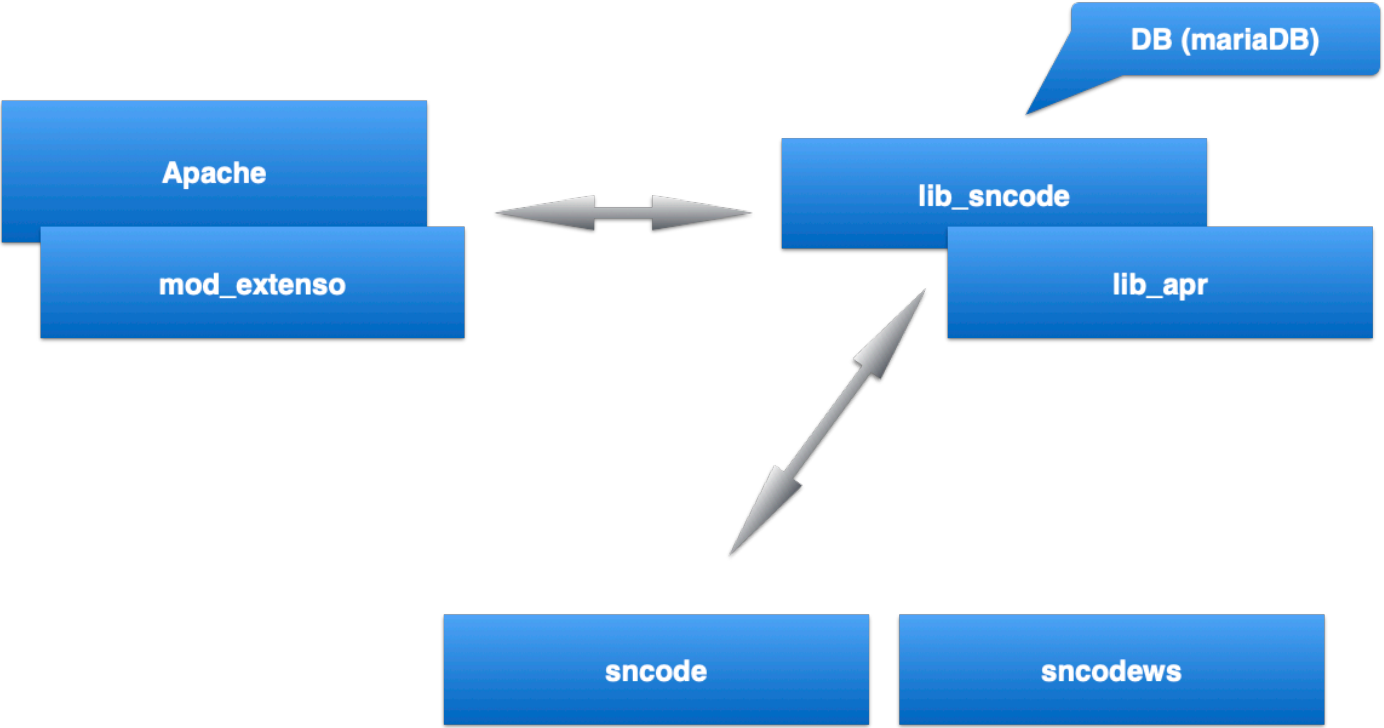- you will need a headphones to speak

Sednove

- Founded in 1997 by Chantal Bilodeau and Pierre Laplante
- Web and mobile applications development
- Technological development
- Branding
- Design

Extenso / Sncode

- Extenso : Clients and programmers interface
- Sncode : Programming language

Architectuee of Extenso

What is different about Extenso ?

- Dynamic / static
- Compile language
- Security with virtual machine
- Grid manager
- Style manager
- Modules manager
- Database manager

Sncode

- Key concepts:
  - Sncode is a compiled language
  - Uses a virtual machine to execute code
  - Rich and extensible library
  - External modules
  - Simple syntax for non programmer
  - Power-full for professional programmer

compile, virtual machine etc.

- Interpreted language, PHP, Ruby
- Compile language : C
- Virtual machine : Java, C#, Sncode
- JIT
- Assembler
- Machine code

Sncode concepts

- File with extention .sn are compile and execute
- File with extension .snc are file already compiled in binary
- Convention use in the naming of site:

  https://ssnode.sednove.com for the staging version
  https://sncode.sednove.com for the production version

Sncode concepts #2

- staging require a login to modify the site
- Production deployment (or publishing) is the process of copying the file from staging to production
- Directory for staging is /staging
- Directory for html is /html

Sncode

- In a page everything that is not between {{ and }} is print as-is
- {{ Start Sncode
- }} End Sncode
- All text outside of Sncode is returned to the browser without being parsed

IDE

- Introduction to IDE in Extenso

- How to execute a program:
  - In staging : https://ssncode.sednove.com/ex.sn
  - In html : https://sncode.sednove.com/ex.sn

Simple example

- <html>
    <body>
        <h1>{{ "Date is "; datetime(); }}</h1>
    </body>
  </html>

Exercices

- Exercice #1 : try to reproduce the previous example.
  - Create a file in /staging/ex1.sn
  - Execute it with the URL https://ssncode.sednove.com/ex1

- Exercice #2 Only display the time not the date

  PS : https://documentation.sednove.com

- PS #2 https://getbootstrap.com/docs/4.5/getting-started/introduction/

Sncode's documentation

- https://documentation.sednove.com
- Man pages under Linux

Sncode's types

- Integer : `{{ a = 5 ; }}`
- Double : `{{ a = 3.1415 ; }}`
- Array : `{{ a = [ 1, 2.0, "3.1415" ]; }}`
- Boolean : `{{  a = true; }}`
- Null : `{{ a = null ; }}`
- Undefined : `{{ a = undefined ; }}`
- Associative Array / Hash array / Context :
  `{{ a = { "x" : 1.5, "y" : 2.0 } ; }}`
- `a.type()` will return the type of variable a

Integer

- Try This program:

```
{{
     a = 5;
     b = a / 2;
     "b = "; b;
     type(b);
}}
```

Operators

- By order of priority:
  - +, - ,
  - *, /,
  - ** (power), % (modulo)

- Try:
  ```
  2 + 3 * 4 ** 2 => 50
  ```

- Use () to modify the order:
  ```
  ((2 + 3) * 4 ) ** 2 => 400
  ```