HTML & CSS Training

## HTML

1. What is the HTML ?

* A bit of history: the SGML, the Cern’s Initiative
* What is a “markup” language

*Ask the audience their level of knowledge of HTML, and what they think about it. “Forget all you know or think you know about HTML”* *When we talk about markup language, we introduce the idea of semantics*

1. Getting started with semantics *Starting from a web page mockup, we’ll markup code, without regarding the presentational information. We have to be sure that basic accessibility info will be stressed*

* Identification of content: from the mockup, ask audience to identificate each type of content
* Markup the content: from the identification of the content, we introduce the first HTML elements: - Content hierarchy (h titles) - Paragraphs - Lists (ordered, unordered, definition) - Images (types,alternatives)

*The document skeleton (DOCTYPE, HEAD, BODY) will be explained later. Here we focus on the HTML goals and the content structure*

1. Identifing Text-level HTML elements

* Identification of text-level elements in the mockup
* Introduction and explanation of tags: - emphasis (em, strong) - links
* Introduction of attributes and their role

1. Grouping content

* Identification of blocks of content and their roles
* Introduction and explanation of block elements: - Divs - Header, Footer, Main, Aside - Sections - Article

*It’s important to be sure everybody undertands the implications of using each HTML element*

1. Navigation

* Structure of a navigation and important content (skip link, header, etc)

1. Form Elements *Creation of a form of medium complexity - check for an interesting APIs to go with it?*

* Form structure, tags and attributes
  + Form tag
  + Fieldset/Legend
  + Label/Input
  + Types of input
  + Form controls

*Give some URLs of sites with good HTML reference (WebPlatform, MozillaDev)* *Page must be all written by now.*

1. HTML Skeleton *Introduce and explain main elements of a HTML file*
   * DOCTYPE
   * HEAD
   * BODY

*Explain how structured, logical and semantic is our code by showing it in a browser - desktop, smartphone, Pad... The content is comprehensible, usable. It will be the matrice for our web app* *Show HTML Validator for a validation on-the-fly and the W3C Validator*

Always show examples from Kawwa to argument and explain

## CSS

*Styles will be applied to the page as the notions are explained*

1. Importing a CSS (ways to, attributes, etc)
2. Basics

* What is — exactly - a CSS
* Inheritance and cascading
* Anatomy of a CSS:
  + Declarations
  + Selectors
  + Properties/values (units, shorthands)

*Attention to edition best practices: tabs, spaces, etc*

1. CSS Reset & defaults (what, why, how)
2. Fonts & text

* Font size management
* font stacks, @font-face

1. Positioning & Layout

* Basic concepts (boxes, the box model)
* Floats & clearing
* Static, relative and absolute positioning
* Grid basics

1. Advanced selectors

* first/last/nth child (of-type)
* after/before

1. Media queries & print styles (will we have time for that?)

jQuery, HTML5 APIs and Advanced CSS3 Training

## jQuery

1. jQuery Fundamentals
   * The Rise of JavaScript
   * Introduction to jQuery
   * Why use jQuery ?
   * jQuery Ecosystem : jQuery, jQuery Mobile, jQueryUI, qUnit, Sizzle
   * Getting Started with jQuery
   * Use jQuery ready() function
   * The jQuery() or $() function
   * Getting started with the jQuery documentation
2. Using jQuery Selectors
   * What are selectors
   * Selecting by tag name, id or class name
   * Selecting Nodes by Attribute value
   * Selecting Input Nodes
   * Additional Selector Features
3. Interacting with the DOM
   * Iterating through Nodes
   * Modifying Properties and Attributes
   * Adding or Removing Nodes
   * Modifying Classes and Styles
4. jQuery Event Model
   * jQuery Event Object
   * What is a Callback ?
   * Handling Events
   * Binding to events
   * Event Delegation
5. Working with Ajax Features
   * jQuery Ajax Functions
   * Loading HTMLcontent ( load() method)
   * Making GET Requests
   * Making POST Requests
   * The $.ajax() method
6. jQuery Animation and Advanced Effects
   * Built-in Effects
   * Hiding and Showing Elements
   * Fade In and Out
   * Slide Up and Down
   * Create new effect with the animate() method
   * Managing Effect Queue
7. jQuery Plugin
   * What is a plugin ?
   * Using external plugin
   * Create a new Plugin
8. jQuery UI
   * What is jQuery UI ?
   * Getting Started with jQuery UI
   * Using jQuery Widget
   * Differences between jQuery Plugins and jQueryUI widgets
   * Create a jQuery UI widget

## HTML5 APIs

1. Feature Detection
2. Polyfills
3. APIs (“à la carte”)
   * Battery API
   * Cache Manifest API
   * Canvas API
   * ClassList API
   * Content Editable API
   * Device Orientation API
   * DOM Events API
   * File API
   * Fullscreen API
   * Geolocation API
   * Indexed Database API
   * Page Visibility API
   * Selector API
   * Server-Sent API
   * Touch Events API
   * Vibration API
   * WebGL API
   * WebMessaging API
   * WebNotification API
   * WebStorage API
   * WebRTC API
   * WebSocket API
   * WebWorker API

## Advanced CSS3

1. Animation
2. Transition
3. Transformation
4. Media Queries in Details
5. Advanced Properties : Patterns, gradients, ...