



WEB PROGRAMMING 1

DETAILED PLAN

- Introduction to web development
- Client side
 - Javascript
 - jQuery
 - Selectors
 - Events
 - Effects/ Animations
 - AJAX

DETAILED PLAN

- Server side
 - PHP
 - Conditional Tests / Loops
 - Arrays
 - Functions
 - HTTP methods
 - PHP / MYSQL
 - Sessions and Cookies
 - PHP MVC
 - Multi tiers architecture

ACQUIRED KNOWLEDGE

By the end of this course, students should be able to:

- Identify the concepts of jQuery and PHP
- Manipulate a MySQL database using SQL
- Develop a website using jQuery, AJAX with PHP and MySQL
- Prepare a detailed project plan with wire frames prior to implementation
- Communicate and share ideas with other team members in order to deliver a well-structured project
- Propose appropriate solutions based on needs while applying best practices

EVALUATION METHODS

The note will be distributed as follows:

- Quiz(s) : 30%
- Project(s) : 40%
- Final exam : 30%

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INTRODUCTION

6

EVOLUTION OF THE WEB

- Web 1.0 (traditional Web ou *Read Only Web*)
 - static website
 - little user intervention
 - focused on the distribution of information
 - product-oriented sites



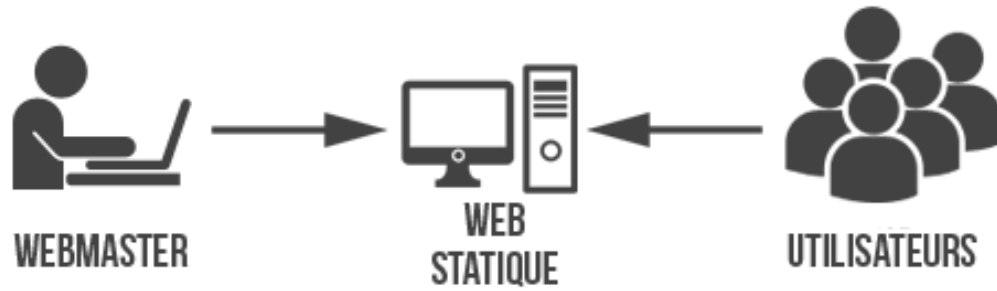
EVOLUTION OF THE WEB

- Web 2.0 (social web or *read-write web*)
 - dynamic website
 - exchange of information and content (texts, videos, images)
 - Examples:
 - blogs
 - Wiki
 - RSS
 - Social networks (Facebook, twitter, LinkedIn, ...)
 - Search engine
 - ...

EVOLUTION OF THE WEB

- Web 3.0 (semantic web or *the portable personal web*)
 - aims to organize the mass of information available according to the context and needs of each user taking into account
 - its location and
 - his preferences
 - tries to give meaning to the data
 - more portable and that makes the link between real world and virtual world

WEB 1.0 {HTML, PORTALS}



WWW.HAZHISTORIA.NET

WEB 2.0 {XML, RSS}



WWW.HAZHISTORIA.NET

WEB 3.0 {MICRO FORMATS, MICRO DATA, RDF(A)}



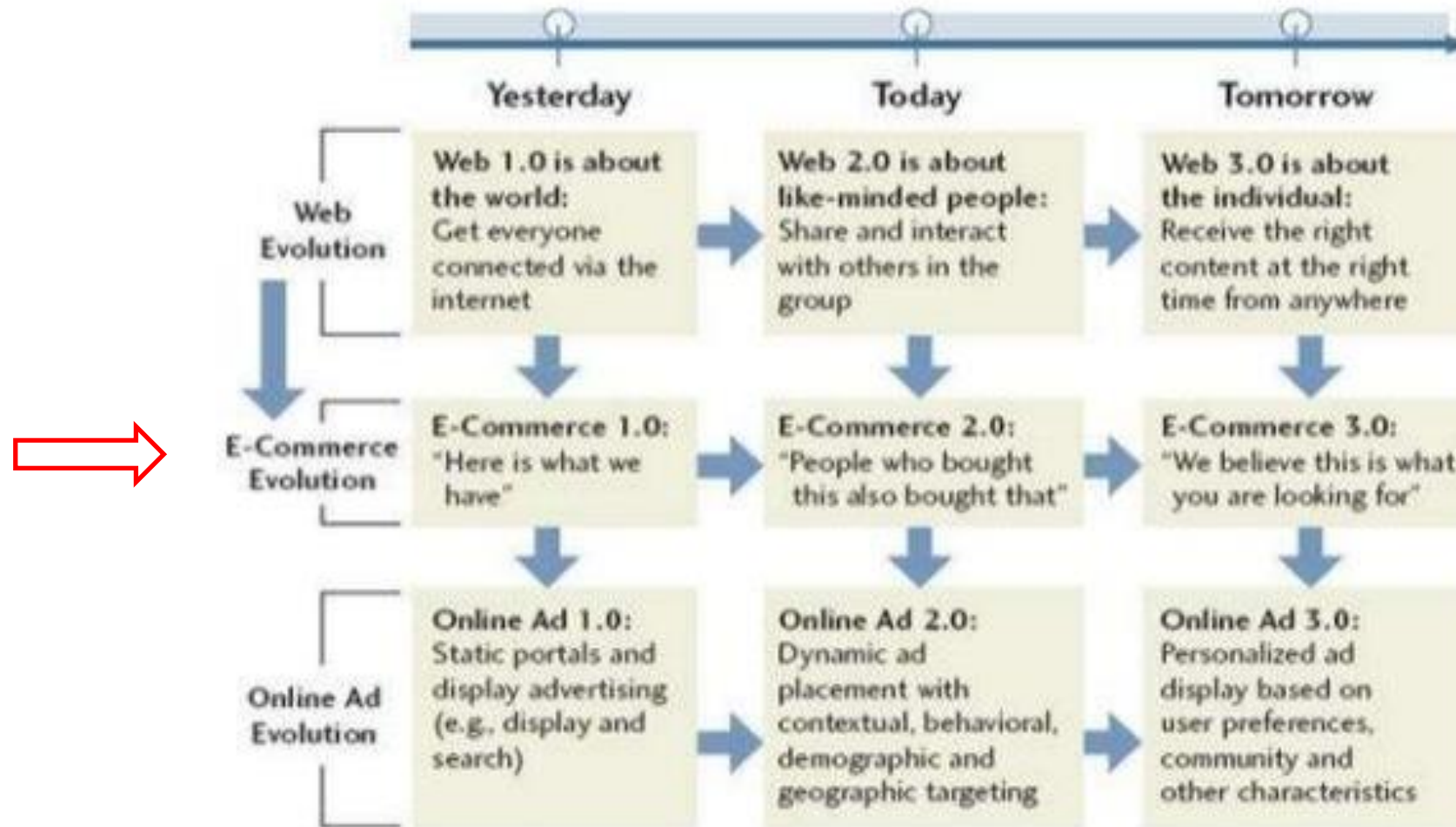
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WEB 4.0 ??

Web 1.0, Web 2.0 and Web 3.0

Web Evolution and Its Impact on E-Commerce and Online Advertising

Source: Yankee Group, 2008



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COMMUNICATION - CLIENT / SERVER

12

WEB SERVER

- Specific type of computers
- Its role is
 - to wait for customer requests and
 - to answer them.
- A website must be published on a **server** , to be accessible
- A server that publishes websites is called a Web server (ie Apache, Microsoft IIS, and nginx)



CLIENT

- The machine that allows the consultation of the requested website is called the **client machine** .
- The client is a software that runs on this machine and performs the lookup operation.
- This software is most often a web browser (*browser*)
 - Firefox
 - Google Chrome
 - Safari
 - ...

CLIENT SIDE

- 'Client side' or 'Front end':
 - is the part of the website that you can see and interact with.
 - executed in the browser
 - consisting of two parts:
 - **design** (HTML, CSS, ...)
 - **language** called 'Client side code'
 - Javascript,
 - jquery,
 - Actionscript, ...

SERVER SIDE

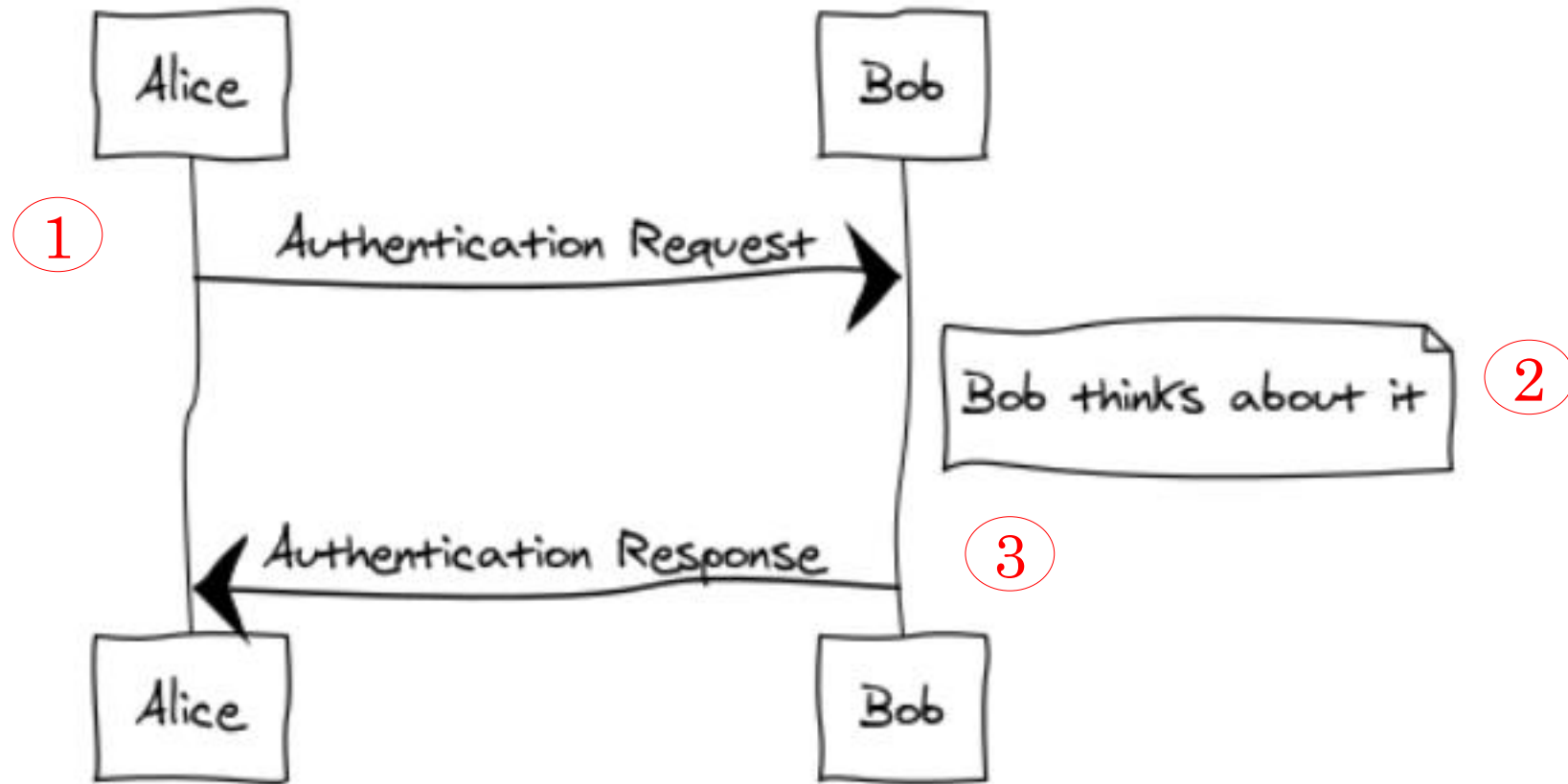
- 'Server side' or 'Back end':
 - is the part of the website running on the servers
 - consisting of 3 parts:
 - A web server
 - A web application
 - A database
 - **language** called 'Server side code'
 - PHP,
 - ASP.net,
 - Ruby,
 - Python,
 - ...

COMMUNICATION - CLIENT / SERVER

- Communication :
 - The exchange is initiated by the client, who sends the server a request to consult a web resource.
 - The server prepares the associated HTML page.
 - The server returns the HTML page to the client, which displays it.
- In order to understand each others, the client and the web server use a common protocol during their exchanges: HTTP.
 - HTTP (*HyperText Transfer Protocol*) is the *Web Transfer Protocol*

COMMUNICATION - CLIENT / SERVER

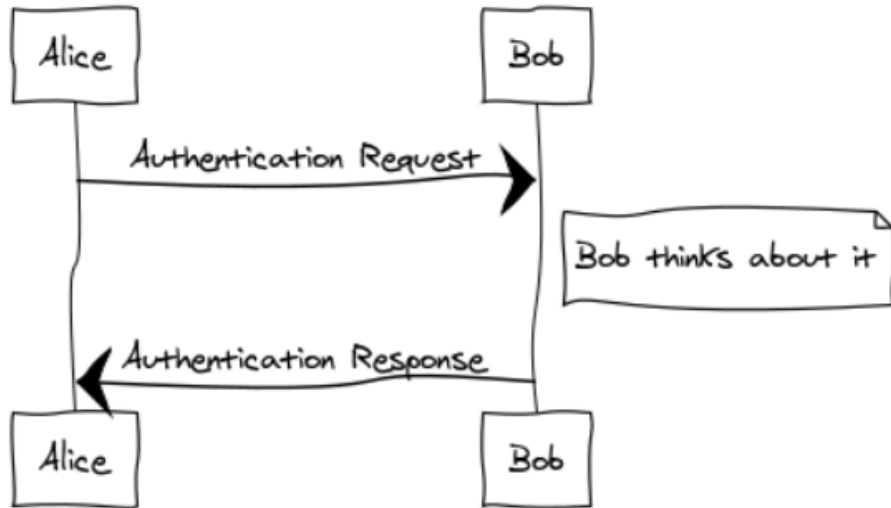
Authentication Sequence



Client

Server

COMMUNICATION - CLIENT / SERVER



GET / HTTP/1.1

Host: xkcd.com

Accept: text/html

User-Agent: Mozilla/5.0 (Macintosh)

HTTP request contains

- GET method means a resource request.
- version of the HTTP protocol, here 1.1.
- Header fields (HTTP headers)

HTTP/1.1 200 OK

Date: Mon, 14 Sep 2016 14:05:05 GMT

Server: lighttpd/1.4.19

Content-Type: text/html

<html>

<!-- code HTML de la page -->

<!-- ... -->

</html>

HTTP response contains

- header fields
 - Status: 200 OK
 - Date
 - Content type
- Body
 - HTML

SEPERATION OF CONCERNS

- Research !
 - Definition
 - Use in web development

