



## PROJET D'APPLICATION WEB

### PRACTICAL IT PROJECT

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| Lecturers : 8.0 | TC : 10.0 | PW : 0.0 | Autonomy : 12.0 | Study : 0.0 | Project : 0.0 | Language : FR

#### Objectives

The objective of this lecture is to put into practice the notions and skills introduced by the other lectures of Computer Science, in the framework of a group project based on the design and development of a web application. The architecture of this application will be based on a dynamic web interface, and a service developed in Python on the server side.

The project will concern the whole application: data model, server, user interfaces (GUI) and client-server interactions.

**Keywords :** WebApp, Webservice, client-server architecture, HTML5, CSS3, Javascript, Ajax, JSON, Python, SQL.

#### Programme

- Web development context and tools.
- Data model.
- Client-server architecture and application protocol.
- Principle of a server.
- User interfaces.

#### Learning outcomes

- Master the basic tools and languages for web programming (HTML, CSS, Javascript).
- Understanding client-server architecture based on web services.
- Know how to do software testing.
- Master the specific characteristics of IT project management (versioning).

#### Independent study

**Objectifs :** Design, development and testing of an application

**Méthodes :** The students are divided into project groups of 4 to 5 people. They have to write a specification, deliver a functional and tested application, and perform the acceptance test of an application made by a competing group.

#### Core texts

Ben Frain, *RESPONSIVE WEB DESIGN WITH HTML5 AND CSS: DEVELOP FUTURE-PROOF RESPONSIVE WEBSITES USING THE LATEST HTML5 AND CSS TECHNIQUES*, 3RD EDITION, Packt, 2020

David Flanagan *JAVASCRIPT: MASTER THE WORLD'S MOST-USED PROGRAMMING LANGUAGE*, O'Reilly, 2020

Leonard Richardson *RESTFUL WEB APIS: SERVICES FOR A CHANGING WORLD*, O'Reilly,

#### Assessment

Final mark = 50% knowledge + 50% know-how (Knowledge = 100% final exam and know-how = 100% project deliverables).