

Application Architecture

Elia Contini

Web Application

A web application or web app is any software that runs in a web browser.

It is created in a browser-supported programming language (such as the combination of JavaScript, HTML and CSS) and relies on a web browser to render the application.

Wikipedia



The problem

How to manage complexity?



Principle

Divide et impera

Design patterns for architecture

MVC, MVVM, MVP, MVW

Design patterns for UI

Observer or Publish/Subscribe

A Solution [2/2]

Toolkit

- non-prescriptive
- open-ended
- loose patterns
- anything possible

VS

Framework

- prescriptive
- focused
- strict patterns
- enforces correctness through architecture

From Robust JavaScript Application Architecture, Dylan Schiemann, FullStack Conference 2014



The problem (reprise)

Mobile and desktop



A solution (reprise)

Responsive Web Design is part of the solution,
not the solution

Cross device approach too



References

- Definition of web application: http://en.wikipedia.org/wiki/Web_application
- Divide et impera: http://en.wikipedia.org/wiki/Divide_and_rule
- MVC pattern: <http://en.wikipedia.org/wiki/Model-view-controller>
- MVVM pattern: http://en.wikipedia.org/wiki/Model_View_ViewModel
- Observer pattern: http://en.wikipedia.org/wiki/Observer_pattern
- Publish/Subscribe pattern: http://en.wikipedia.org/wiki/Publish-subscribe_pattern
- Learning JavaScript Design Patterns, Addy Osmani:
<http://addyosmani.com/resources/essentialjsdesignpatterns/book/>
- Robust JavaScript Application Architecture, Dylan Schiemann:
<http://www.sitepen.com/blog/2015/01/08/in-search-of-the-right-application-architecture/>
- Shadow DOM tutorial: <http://webcomponents.org/articles/introduction-to-shadow-dom/>

