

“API first” architecture

or the “fat” vs. “thin” server debate

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<http://www.leaseweblabs.com/2013/10/api-first-architecture-fat-vs-thin-server-debate/>

Traditional MVC

- Model – Data layer (SQL)
- View – Presentation layer (HTML)
- Controller – Logic layer (PHP)

- Front-end / Back-end
- Customers / Employees

Mobile views

- Two sets of views: mobile and desktop
- Hosted on a “m.” subdomain
- Advantage: simple and transparent
- Disadvantage: how about “native”?

Native or HTML5?

- HTML5 requires you to redesign the views.
- Native requires you to build a complete, responsive, and well-documented API
- Danny Brown (a marketing guru) says:
“Any company creating mobile apps today faces an important decision, Native or HTML5? Each one has its advantages, but choosing the wrong one could be costly.”

API views

- Native needs an API
- We already added mobile views
- Let's add JSON views and documentation
- Build an API on top of MVC

“Fat” vs. “Thin” server

Fat = Server-side MVC

- Database abstraction
- Business logic
- Presentation

200 ms / request

Thin = API service

- DBAL without ORM
- Limited business logic
- No presentation

20 ms / request

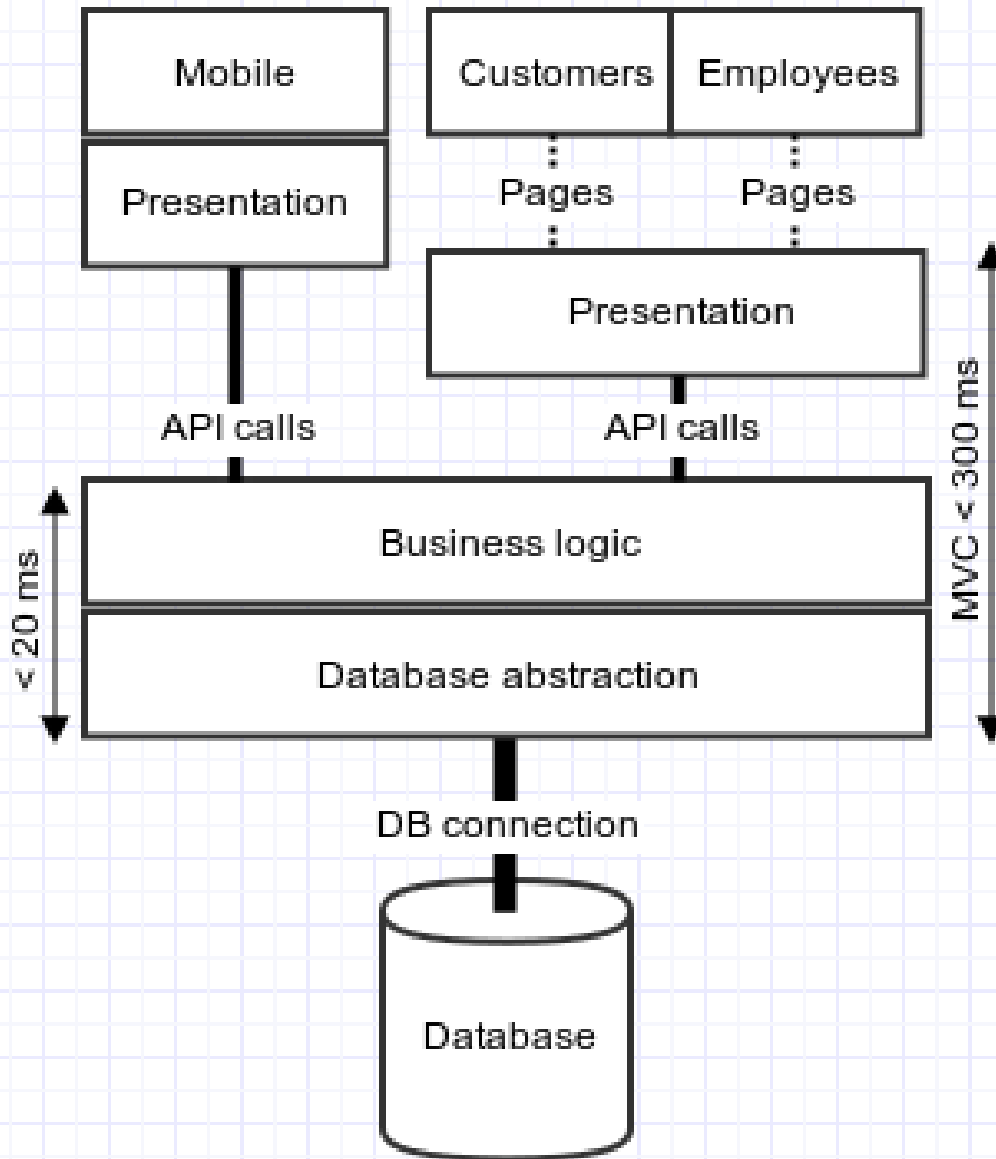
10 API calls of 20 ms fit one MVC page load of 200 ms

Twitter

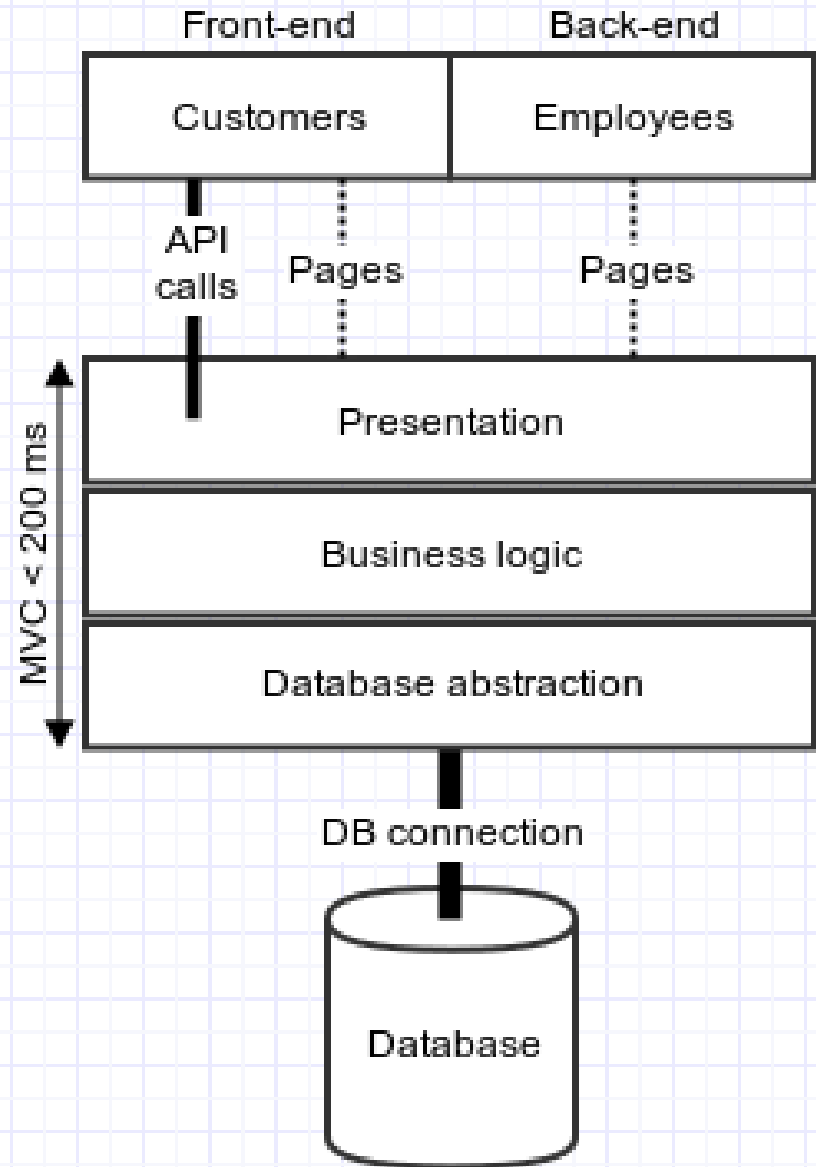
- Twitter has an “API first” strategy since 2010
- They call this a “JavaScript architecture”
- It allows them to create JavaScript web “apps” with architecture equal to their mobile “apps”
- Twitter says: “In order to support crawlers and users without JavaScript, we needed a rendering system that runs on both server and client.”

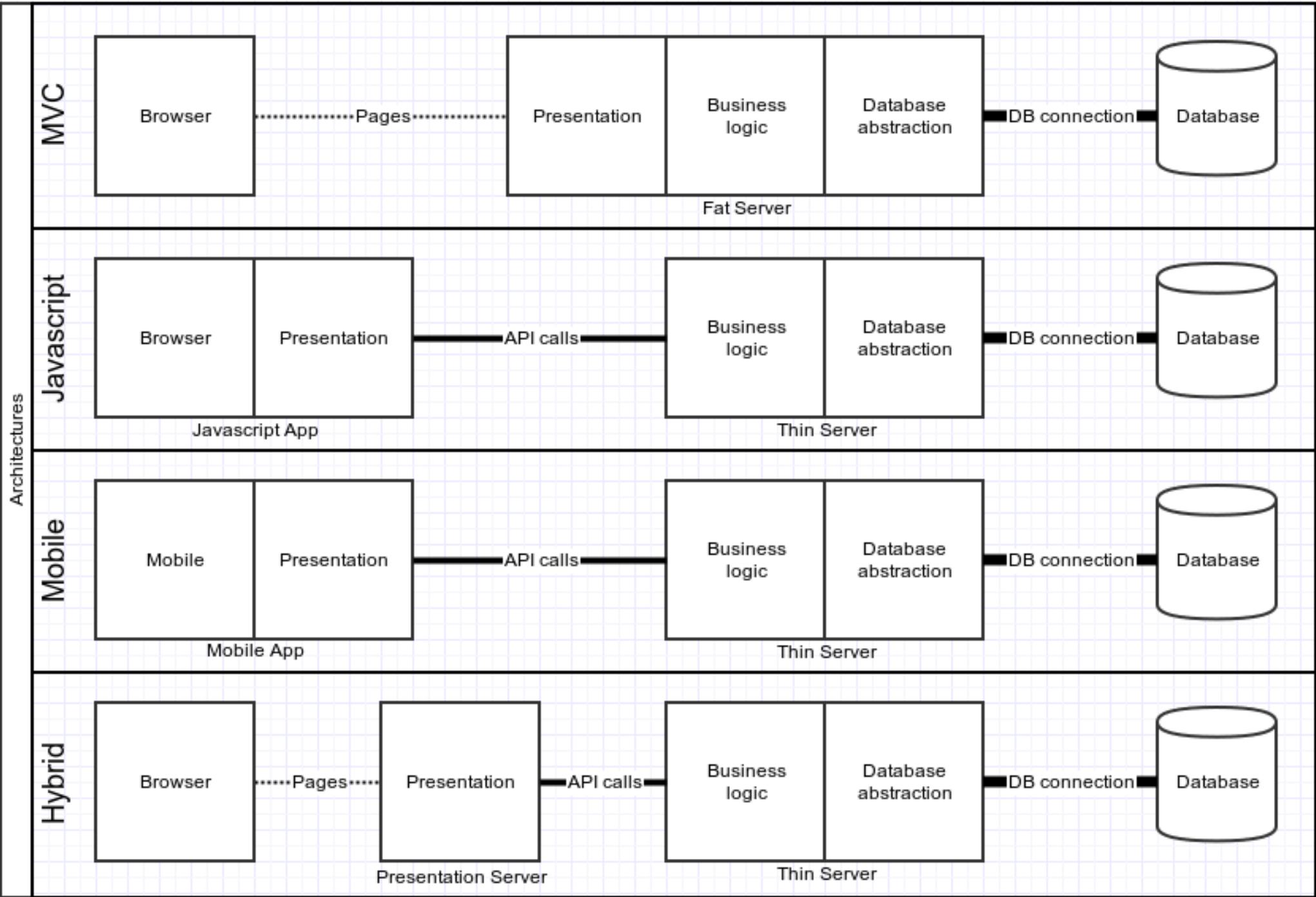
Architecture

(fast) API first



MVC with (slow) API





Further reading

- 2009 – [“API-First Design”](#) by Kas Thomas (blog)
- 2011 – [“API-First Development”](#) by David Dossot (blog)
- 2011 – [“Creating an API-Centric Web Application”](#) by Nikko Bautista (tutorial)
- 2012 – [“API First”](#) by Mark O’Neill (blog)
- 2012 – [“API-First Product Development with Heroku”](#) by do.com (long video)
- 2012 – [“API-first Design Approach”](#) by Ben Brignell (blog)
- 2012 – [“APIs First”](#) by Amish Jani (blog)
- 2013 – [“www.api-first.com”](#) by Fiona and Evan (website)
- 2013 – [“API First \(PHP Tek 2013\)”](#) by Ben Ramsey (slides)

Questions?

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