



HTML5 and JavaScript

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HTML5 and JavaScript

- Provide more useful tools for developers
- Example: AJAX, comet, long polling, WebRTC
- Audio and video
- Canvas
- https://docs.google.com/presentation/d/1Mm0_vwG4ekP9Q_xUU4uUvCvjn-20y84T3c6YUoTAyl/edit#slide=id.g5ad93c02_0_27

Examples

- https://docs.google.com/presentation/d/1Mm0_vwG4ekP9Q_xUU4uUvCvjn-20y84T3c6YUoTAyl
- Geolocation
- History API
- postMessage
- Web Workers
- Drag and drop
- Canvas (<http://andrew-hoyer.com/andrewhoyer/experiments/cloth/>)
- More: <http://slides.html5rocks.com>

Architectures

- MVC
- MVP
- MVVM
- <http://joel.inpointform.net/software-development/mvvm-vs-mvp-vs-mvc-the-differences-explained/>

Client Side MVC / MVVM

- **API Server side**
- **Model holds data**
- **View: active view (data-bind, events, ...)**
- **ViewModel: specialized controller**
- **„representation of data and operations that can be performed on a UI “**

Examples

- <http://knockoutjs.com/examples/helloWorld.html>
- <http://jsfiddle.net/dagda1/EhyMR/7/>

Client side

- Event driven
- Separate semantics and data
- Low server cost
- API-first
- Offline, localstorage, ...
- Disadvantages?

Interesting modern web apps

- **Legacy app news portal: every web page is completely generated on web server mixed logic, semantics and data**

Interesting modern web apps

- Modern app news portal: web server just sends empty semantics template and uses AJAX, RTC, ... for obtaining data.
- **THIS ONE CAN GO OFFLINE EASILY!**
- Strict separation of data and semantics

Frameworks

- Angular
- Backbone
- Knockout
- Ember
- Knockback
- JavascriptMVC
- ...

Offline

- Web Storage
- Web SQL vs. Indexed DB
- Application cache
- File API
- https://docs.google.com/presentation/d/1xH2i0ItiLJ4UvMYYNfMHva5QG_3yKLVC3MeEyPMbyJY

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- <http://caniuse.com/>
- <http://www.html5rocks.com/>
- <http://diveintohtml5.info/>
- <http://www.w3.org/html/wg/drafts/html/master/>
- <http://addyosmani.com/blog/understanding-mvvm-a-guide-for-javascript-developers/>
- <http://codebrief.com/2012/01/the-top-10-javascript-mvc-frameworks-reviewed/>
- <http://paulhammant.com/2012/02/13/client-side-mvc-frameworks-compared/>