Client-Side Storage
Ashok Malhotra
<ashok.malhotra@oracle.com

Cookies

- The Web is stateless
- Cookies were invented by Netscape to add state
  - Allow, for example, session tracking and personalization
  - Does personalization (different views of same resource) break WebArch? i.e. compromise our ability to
    give URIs to things which can be distributed effectively?
- What are the properties of these two types of systems?
- Session cookies and persistent cookies
- Third-party cookies
- IETF drafts on cookies

Client-Side Storage

Limitations of Cookies/New Requirements

- Cacheing and offline usage

- Access from multiple websites

- Management of personal storage -- pruning, query

- Large amounts of storage

- Control over what is transmitted with each request

Responses to These Requirements

- CORS and UMP

- Other means of making Cross Domain Requests

- Web Storage: http://dev.w3.org/html5/webstorage/

- Web Indexed DB: http://www.w3.org/TR/2010/WD-IndexedDB-20100819/

Bottom Line

- The new Client-side storage facilities enable new kinds of applications and extend web functionality. For example:
  - Copy all your mail and work on it offline
  - Make personal travel preferences available to several travel sites
  - Other applications using client-side storage

Question

- Do individual items in client-side storage require distinct URIs?

Concerns

- Cannot copy local storage from one device to another – e.g. from laptop to phone
- Cannot convert data available in other formats: SQL, CSV, XML to local storage and vice versa
- Cannot store my address book as local storage
- Privacy is a concern. If persistent storage is compromised it can have far-reaching consequences