Managing user's session with Spring Session

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About the Author

- Software Development Engineer at Kapsch CarrierCom d.o.o. since 2011

- Developing solutions in Telco industry, primarily related to Number Portability

- An active contributor in open-source community (mostly Spring related projects)

Servlet HttpSession

- Easy to use – leads to abuse/misuse

- Hard to scale

- Clustering is container specific, often requires multicast

- Stateless architecture – is it always possible?

Enter Spring Session

- A Servlet `HttpSession` wrapper

- Container agnostic – configure once, use everywhere ☺

- Provides strategy for storing sessions – proxies Servlet `HttpSession` to the backing store

- Does not necessarily require Spring

Polyglot Session Persistence

- Pluggable implementations for session store

- Initial release (1.0) provided Redis and `java.util.Map` backed stores

- Release 1.1 added explicit support for Hazelcast and Gemfire

- Release 1.2 (scheduled for May 2016) will add support for JDBC and MongoDB
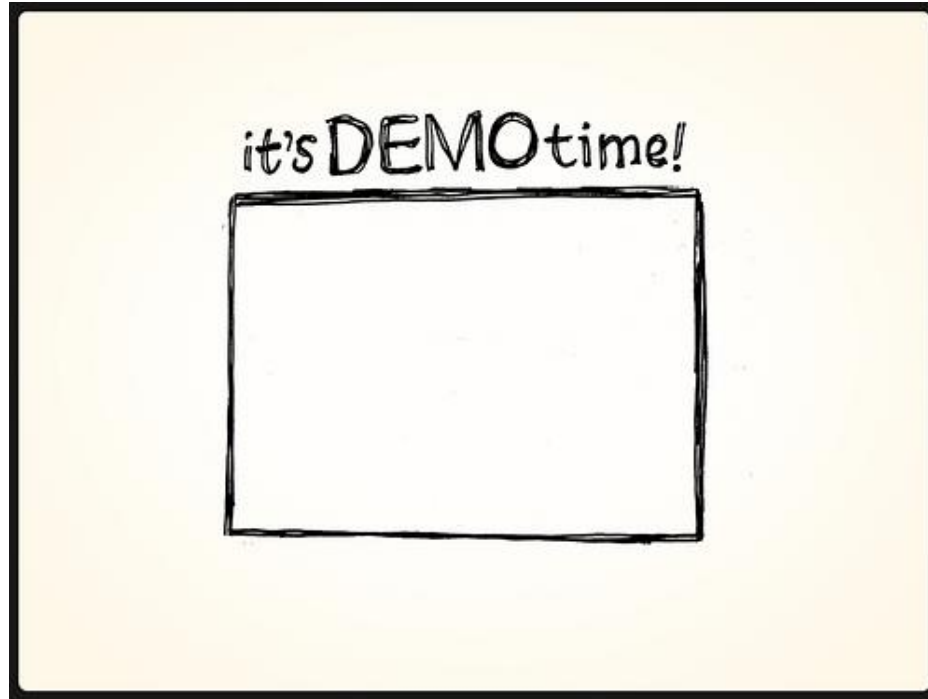
Basic Demo
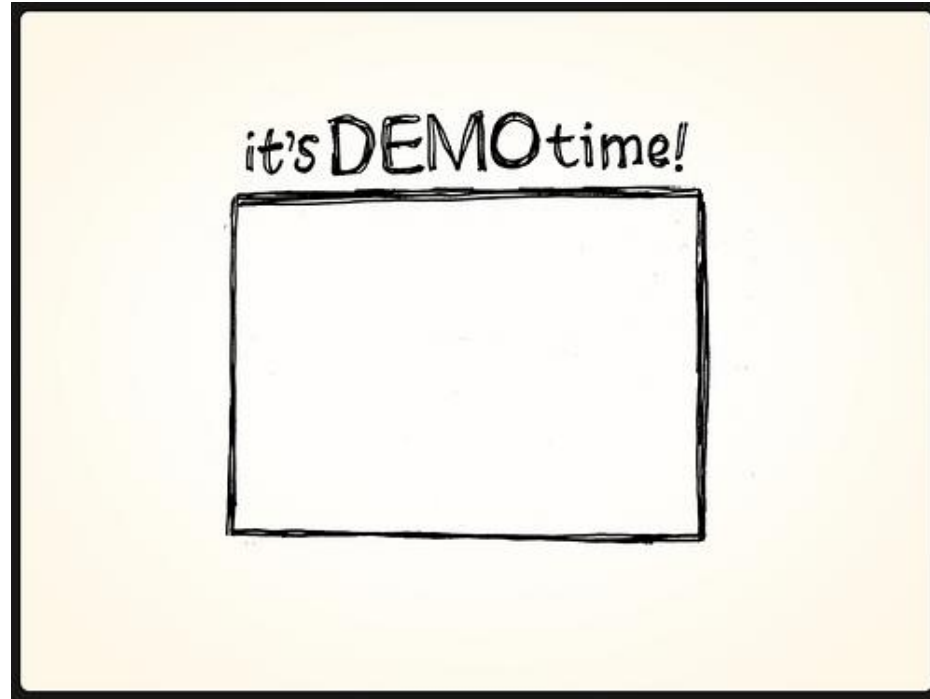
HttpSessionStrategy

- Correlating the stored session to the HTTP client

- Cookie based strategy – bye-bye JSESSIONID ☺

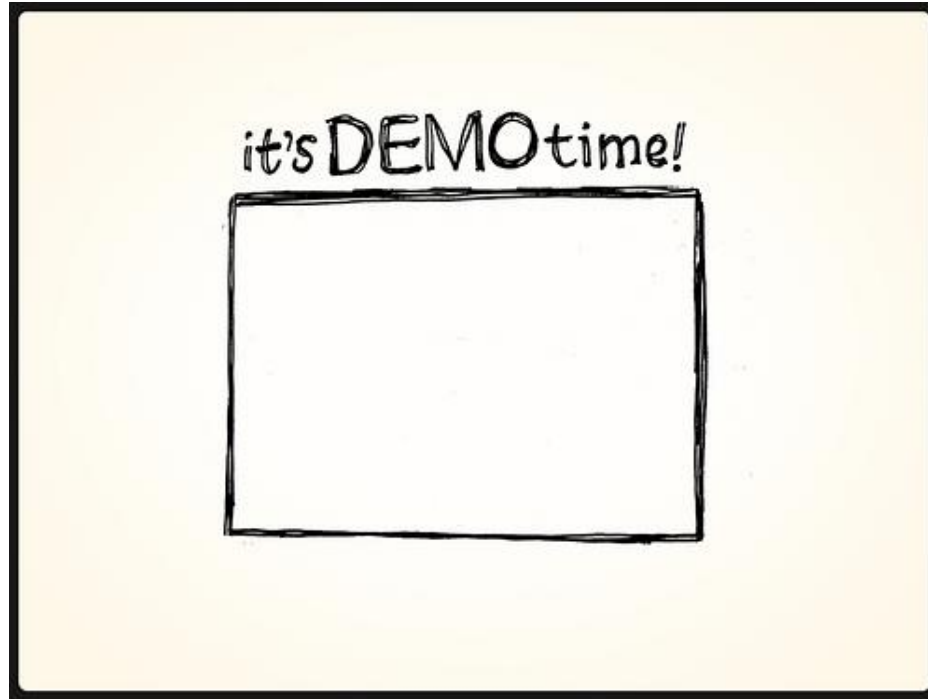- HTTP header based strategy – RESTful APIs

Session Strategy Demo

Session Switching

- Support for multiple sessions in a single browser

- `HttpSessionManager` provides support for handling session aliases and encoding URL's

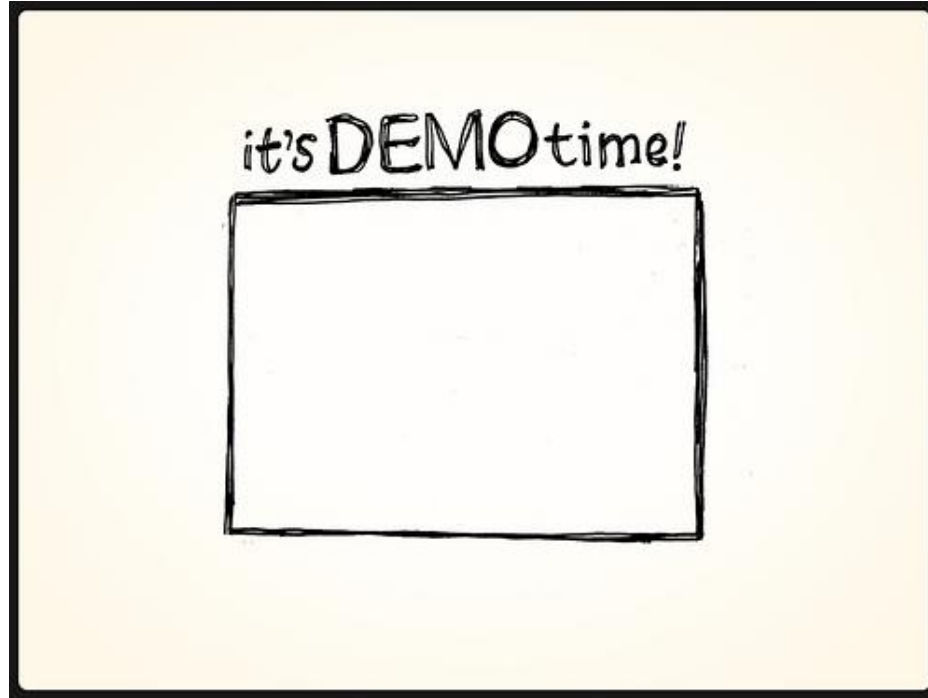- Uses cookie for correlating sessions and aliases

Session Switching Demo

WebSockets

- WebSockets and HTTP Session – no easy way to keep the Session alive

- Spring Session provides interceptors to transparently integrate with Spring's WebSocket support

WebSockets Demo

Other Features

- `HttpSessionListener` – translates Spring Session events into `HttpSessionEvent` (provided session store supports it)

- `FindByIndexNameSessionRepository` – allows retrieval of all sessions for the given user

- Custom session serialization (most session stores)

Resources

- Project page: http://projects.spring.io/spring-session/

- Issue tracker: https://github.com/spring-projects/spring-session/issues

- Source code: https://github.com/spring-projects/spring-session

- Sample project: https://github.com/vpavic/javacro16-spring-session

Questions

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