

# JBoss Community

## Web Technologies in Java EE Hands-On Lab

JAX-RS, JSON-P, Angular

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# Agenda

- Look at what we have
- JavaScript tooling (ecosystem)
- Expose REST endpoints and setup Angular frontend
- Implement custom component in Angular
- Call REST endpoints from new Angular service

# Application

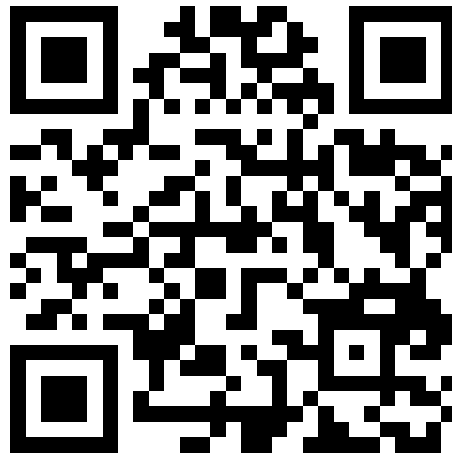
- Very simple chat/forum application
- Consumes JSON via REST
- Frontend written using Angular framework

# Application

goo.gl/aURy3j

points to:

<https://github.com/Jiri-Kremser/pv243-a4m36jee-2016-web-seminar-autumn>



# lvi-00: what we have?

- Standard Maven project structure
  - pom.xml
  - Java EE7 dependency
  - Use ng new webapp command to bootstrap the frontend application
  - Maven uses frontend-maven-plugin to build and package the frontend app
  - Webpack
  - Yarn

# lvl-00: what we have?

- Content of `src/main/frontend` was created by command:

```
ng new frontend
```

- Angular-cli can be installed by:

```
sudo npm install -g @angular/cli
```

# IVL-01: REST endpoints

- Expose following endpoints:
  - GET /messages
  - POST /messages
- Produce / consume JSON
- MessageEndpoint JAX-RS endpoint
  - /api/v1/messages
  - 1. @ApplicationPath("api/v1")
  - 2. resource: @Path("messages")
  - 3. methods @GET @POST

# lvl-02: new component

- Create new web component called message
- Angular-cli:
  - ng generate component --selector message message
- Remove the boilerplate code in `app.component.html` and test the new component by adding it here



# lvl-03: add library and data

- Add external library called bootstrap  
`yarn add bootstrap@^3.0.0`
- Create some dummy data with messages  
in `app.component.ts`
- Use `*ngFor` in the template to iterate  
through the messages and show them

# lvl-04: Form for adding msg

- Add a method to `app.component.ts` that adds new message into an array
- Add the form that calls the method into `app.component.html`

# lvl-05: deleting messages

- New method in `app.component.ts`
- Calling the method with correct index from the template

# lvl-06: new Angular service

- ng g service services/rest
- Register the new service in app.module.ts (as a provider)

# lvl-07: Http calls

- Use HttpClientModule to make the calls to our REST api
- For this you need the back-end part to be up and running
- Observables and RxJS