## Angular Basics

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# Lecture 2: Building, Configurations and Deployment

### Lecture Overview

- TypeScript compilation
- Angular Build Process
- How to configure application environments
- Deployment to remote web server

## Typescript Compilation

• The compiler can be installed with NPM:

```
npm install typescript
```

- It is a regular NPM package <a href="https://www.npmjs.com/package/typescript">https://www.npmjs.com/package/typescript</a>
- Documentation can be found on the official website: <a href="https://www.typescriptlang.org">https://www.typescriptlang.org</a>
- DEMO...

## Angular Build Process

- Compile the angular app to the defined output dir with:
   ng build
- NG BUILD uses webpack internally to generate static application sources - index.html, styles.css, main.js
- JIT (Just-In-Time) & AOT (Ahead-Of-Time) Compilation

#### JIT

- Just-In-Time Compilation Compiles your app in the browser at runtime
- Default when you build the app with ng build or ng serve
- Debugging and development
- Bigger files and slower execution

### **AOT**

- Ahead-Of-Time Compilation Compiles your app at build time
- Designed for production
- Faster execution, smaller file size
- Better security

#### **Build Environments**

- Allow different configurations at runtime
- Environment is just a TypeScript object that can be used by your application
- Replaced at build time if configured so in your angular.json config
- Demo...

## Deployment

- Just serve the built index.html from server of your choice
- Keep in mind that proxy\_conf works just for ng serve, you may need to adjust your server proxy settings
- DEMO Deploy our application on the production server where the REST API is stored - use NGINX

#### THE END

Danke für die Aufmerksamkeit:)

#### Resources

- Angular Build Configuration: <a href="https://angular.io/guide/build">https://angular.io/guide/build</a>
- Angular TypeScript Configuration: <a href="https://angular.io/guide/typescript-configuration">https://angular.io/guide/typescript-configuration</a>
- Typescript docs: <a href="https://www.typescriptlang.org/docs/">https://www.typescriptlang.org/docs/</a>
   home.html
- Tutorial Github Repo: <a href="https://github.com/martindobrev/nb-angular-tutorial">https://github.com/martindobrev/nb-angular-tutorial</a>