

Angular 6 Overview & Setup : Sept 2018

Setup

- You will need **administrator rights** and the ability to install/run software from the command line.
- Install **Chrome**
- Install the Augury extension for Chrome
- Install **Atom** or **Visual Studio Code**.
- Install **Node** (which also installs NPM)
- Check Node/NPM versions:

```
node --v
npm --v
```

- The Angular 6 CLI requires Node 8.9+, and NPM 5.5.1+
- Install the **Angular Command Line Interface (CLI)** globally.

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

- Check the Angular 6 CLI is running:

```
ng --version
ng --help
```

- Some optional useful tools that can also be installed.
- **Typescript** can be run from the command line.

```
npm install -g typescript
```

- http-server creates a local web server

```
npm install http-server -g
```

JS review

- Review of ES5 and ES6 fundamentals

Exercise a-intro

- Create a **minimal** Angular app using the Angular CLI.
- The **structure** of an Angular app.

Exercise b-shop

- Iterate over an array using **ngFor**.
- Add a currency **pipe**

- Add a **(click) event**
- Conditionally display/style using **ngIf** and **ngClass**.

Exercise c-compose

- Angular components are **composable**.
- Using **ng generate** to add a new component.
- Pass **inputs** into a component.
- Emit **output** events from a component.

Exercise d-translate

- Convert a jQuery translation example into Angular

Exercise e-di

- Create a new **service** to read JSON data using HTTP.
- Connect the service to a component using Dependency Injection.

Exercise f-pipe

- Built-in Angular pipes
- Create a custom pipe.

Exercise g-observable

- Introduce Observables using JS
- Implement an Observable in Angular.

Exercise h-vote

- Use GET/PUT with HTTPClient to read/write to a Node server.

Exercise i-forms

- FormControl, FormGroup
- FormBuilder
- Validation
- Custom validation

Exercise j-router

- Define an Angular router.
- Route parameters
- Nested routes
- Guards.

Exercise k-lifecycle

- Working with component life cycle hooks

- Creating a stateful pipe with onDestroy.

Exercise l-game

- Working in teams, port a word game from plain JS to Angular.

Exercise m-testing

- Unit testing with Jasmine and Karma

Exercise n-directive

- Create a custom directive.
- Communicate between the directive and its parent component

Exercise o-redux

- Centralise state using the Redux pattern.

Exercise p-angular6

- Review new features of Angular 6