

TP 2 Angular

Introduction : Angular allows to build applications and reuse the code and abilities to build apps for any deployment target: for web, mobile web, native mobile and native desktop.

STEP 1. Installation

Angular requires:

- Node.js (an open-source, cross-platform JavaScript run-time environment for executing JavaScript code server-side) : <https://nodejs.org>
- Npm (a package manager for the JavaScript programming language) : automatically installed after installation of Node.js
- Angular installed by terminal : ***npm install -g @angular/cli***

NOTE : Installation documentation <https://angular.io/guide/quickstart>

STEP 2. Create a workspace and initial application

Run the CLI command : ***ng new <ng-cars>***
<ng-cars> – the name of your project

The **ng new** command prompts you for information about features to include in the initial app project. Don't forget to include routing module.

STEP 3. Serve the application

1. Go to the workspace folder (ng-cars)
2. Launch the server by using the CLI command : ***ng serve***
3. Open in any browser <http://localhost:4200>

STEP 4. JPA lab improvements

1. Open your JPA lab work
2. Add REST controller (see example, `WebService LabWork-1, CarRentalService.java`) that allows you to make HTTP requests and to work with your database layer (vehicule, car, van, rent, person and their relationships) :
 - Get list of all rents ;
 - Find rents by plate number ;
 - Add a vehicle ;
 - Get list of all vehicles ;
 - Find vehicle by plate number ;
 - Rent vehicle. This method should rent car and should get back rented car.

3. Test your REST endpoints using Postman client

NOTE : Read et configure cross-origin for localhost:4200 (for all rest endpoints) :

@CrossOrigin(origins = "<http://localhost:4200>")

NOTE : Due to inheritance it's necessary to use with json types to identify the right subclass (see JsonTypes Spring directive) :

@JsonTypes(.....)

STEP 5. Write Angular Client

1. Create Angular componet to add vehicle (car or van)) - see angular ngModel

2. Create Angular component to watch list of cars, rent and get back them – see angular ngFor

3: Write Http service to work with REST server

NOTE : Angular tutorial <https://angular.io/tutorial>