

# Installation documentation



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## **1. Node**

There are two different versions of Node.js : the LTS version is recommended for the most users and the current version is included the latest features. We're used the actual version of node.js (July 2020: 12.18.2 LTS) in a 64-bit version.

How to download node.js, you can be found here:

<https://nodejs.org/en/> or <https://nodejs.org/en/download/>

**Attention:** if you download node.js, the npm package will also be installed; Node.js is a prerequisite for the API

## **2. Installation of Angular**

Before you start using Angular, make sure that script execution is allowed on your computer. If what is the default (or at least should be) is not allowed, do the following steps (only for Windows, please look up for other OS):

1. Opens any console with admin rights
2. In Windows you can do this by clicking the "Run as admin" field in the context menu (right-click)
3. Enter the following command: set-executionpolicy remotesigned (remotesigned is just one of a few options. Find out more at <https://docs.microsoft.com/en-us/powershell/module/microsoft.powershell.security/set-executionpolicy?view=powershell-7> for more information. Be aware that this can be a security risk.)

The official Angular documentation sums it up well: <https://angular.io/guide/setup-local>. If the documentation for Angular is too long for you, here are the main points, that are kept short for the installation:

1. Go to the website [nodejs.org](https://nodejs.org) and download the version with LTS
2. npm is installed during the nodejs installation.  
Otherwise: <https://docs.npmjs.com/about-npm/index.html>
3. go to a console of your choice (e.g. Powershell, bash, cmd, ...) and enter the following to install Angular:

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

4. To test whether the installation of node, npm and Angular has succeeded, use the following commands:

```
node --version
npm --version
ng --version
```

## **3. API**

### **3.1. General**

Here is some basic information about the api itself:

1. Language: JavaScript + TypeScript
2. Runtime environment: Node.js
3. Router: Express.js
4. Database: MongoDB

### **Project Folders**

1. documentation: Guides to setup the API and documentation for the backend.
2. postman: Contains the requests the API can receive / send.
3. dist: Distribution folder for the application. Contains the translated JavaScript code.
4. logs: Default folder for logs created during runtime. Configurable in config.json.
5. src: Contains the application source code.

### **Project Configuration**

The config.json in the main folder is the primary source to configure the application. See documentation for further information.

### **Prerequisites**

A running instance of MongoDB and a correct config.json.

### **Commonly used commands**

Use "npm run build" to build the project.

1. To serve the backend from the "dist" folder: "npm run serve"
2. To test the backend while running: "npm run userTests"

### **3.2. Download step-by-step**

Prerequisite: The API requires a running instance of MongoDB

At first, you have to unpack the API-folder in one of the folders of your choice. Then switch to the master branch if it isn't already checked out. Check the current branch with

**git status**

If you aren't in master, navigate to the project folder with a terminal of your choice and use the command

**git checkout master**

If you are in a master branch or a branch in your local repository and before you want to start your API server, please follow the steps:

- Install dependencies, build and run
  1. **npm install** => with this command will install the whole dependencies in the local node\_modules folder
  2. **npm run build** => with this command builds the app for the production to the build folder.
  3. **npm run serve** => start the api server

## **4. Front-End**

### **4.1. Deployment**

Update the url of the api in `src/environments/environment.prod.ts`

For the simplest deployment, create a production build and copy the output directory to a web server.

1. Start with the production build:

**`ng build --prod`**

2. Copy *everything* within the output folder (`dist/` by default) to a folder on the server.
3. Configure the server to redirect requests for missing files to `index.html`. Learn more about server-side redirects below.

This is the simplest production-ready deployment of your application.

If you want to find more about the deployment, consider having a look at this link:

<https://angular.io/guide/deployment>

### **4.2. Debugging**

#### **Usage**

To start the application with the built-in development server, use the following command:

**`ng s`**

The default port is 4200. You can configure it with the `<code>--port</code>` option:

**`ng s --port 4201`**

Browse

**`http://localhost:{your configured port}/login`**

to get started!

#### **Documentation**

If you want to read the generated documentation, you can host the documentation folder with an http server of your choice, or you can run this commando:

**npm run serveDoc**

This will host the docs at <http://localhost:8080>

## **Tests**

In order to start tests, use the following commando:

**npm run test**

This project uses jasmine as the test framework and karma as the test runner as they are the default choices in any Angular project created by Angular cli.

### **4.3. Download step-by-step**

At first, you have to unpack the API-folder in one of the folders of your choice. Then switch to the master branch if it isn't already checked out. Check the current branch with

**git status**

If you aren't in master, navigate to the project folder with a terminal of your choice and use the command

**git checkout master**

If you are in a master branch or a branch in your local repository and before you want to start your API server, please follow the steps:

1. **npm install** => install dependencies
2. **ng serve** => start the built-in development server

Your Front-End server will run on the port **localhost:4200**.