## **Angular Project Assignment**

Your task is to design and implement a web application using Angular. Use a service like Firebase for your back-end or create your own with Node.js and MongoDB or a framework in another language (ASP.NET, Spring, Symfony). It can be a discussion forum, blog system, e-commerce site, online gaming site, social network, or any other web application by your choice.

## 1. Application Structure

The application should have:

- public part (accessible without authentication)
- private part (available for registered users)

#### 1.1 Public Part

The public part of your projects should be visible without authentication. This public part could be the application start page, the user login and user registration forms, as well as the public data of the users, e.g. the blog posts in a blog system, the public offers in a bid system, the products in an e-commerce system, etc.

### 1.2 Private Part (User Area)

Registered users should have personal area in the web application accessible after successful login. This area could hold for example the user's profiles management functionality, the user's offers in a bid system, the user's posts in a blog system, the user's photos in a photo sharing system, the user's contacts in a social network, etc.

## 2. General Requirements

Your Web application should use the following technologies, frameworks and development techniques:

- At least 3 different dynamic pages (pages like about, contacts, login, register do not count towards that figure). If your project doesn't cover this condition you will not be graded.
- Use Angular for the client-side
- Communicate to a **remote service** (via REST, sockets, GraphQL, or a similar client-server technique).
- Implement authentication
- Use a source control system like GitHub, Bitbucket etc. Commit inside the repository for at least 3 days.

## 3. Other Requirements

- Apply error handling and data validation to avoid crashes when invalid data is entered
- Brief **documentation** on the project and project architecture (as .md file)
- Good usability. Good UI and UX. (NGBootstrap, MDL, CSS Grids or another method of your choice)

# 4. Project Defense

Each student will have to deliver a defense of their work in front of one other student, trainer or mentor. Students will have only 20 minutes for the following:

- **Demonstrate** how the application works (very shortly)
- Show the **source code** and explain how it works















Please be strict in timing! On the 20th minute you will be interrupted! It is good idea to leave the last 3-5 minutes for questions from the trainers.

Be well prepared for presenting maximum of your work for minimum time. Open the project assets beforehand to save time.

The project defense will be happening **online** through **Discord** (or another platform of this type).

#### 5. Bonuses

- Deploy the application in a cloud environment
- Use a file storage cloud API, e.g. Dropbox, Google Drive or other for storing the files.
- Use of features of HTML 5 like Geolocation, SVG, Canvas, etc.
- Use **Angular Animations** somewhere in your application
- Write unit tests for your components
- Use RxJS powered **state management** for Angular applications, inspired by Redux (ngRx store)
- Anything that is not described in the assignment is a bonus if it has some practical use.

#### 6. Assessment Criteria

#### **General Requirements – 25 %**

### Functionality Presentation - 50 %

Adequately and clearly demonstrate the requested functionality. Know your way around the application and quickly demonstrate the code. Evaluation in this section is also based on the **structure** of your code.

### **Answering Questions – 25 %**

Answer questions about Angular specifics and potential functionality outside the scope of the project.

## Bonuses – Up to 10 %

Additional functionality or libraries outside the general requirements, with motivated usage.

#### 7. Submission Deadline

You must submit your project before 23:59 on 31st July using a survey that will show up the 24th July. A presentation schedule will be available on the 09th August and will include only the projects that were submitted beforehand. Non-submitted projects will NOT be evaluated.

#### 8. Restrictions

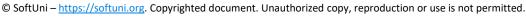
You can use parts (some components, routing configurations, form validation etc...) of the course workshop, but you are **NOT** allowed to use the **whole workshop** as your project assignment.

## 9. Project Challenge

The **three best projects** will win a discount for the next course or module:

- First place 80% discount voucher
- Second place 50% discount voucher
- Third place 30% discount voucher



















The ranking of the projects is done based only on the submitted project (it does not include the assessment of the theoretical exam). The voucher could be used for one course or for one module in the open or the professional program at SoftUni. It cannot be divided into parts or given to another person. The voucher is valid for one year since the announcement of the winners.









