```
er<string> = new EventEmitter();
                LueChange: EventEn
                                  lderElement: ElementRef;
Web-API
                                  ber;
Developer
                                  f, private renderer: Renderer)
Challenge
                                  s): void {
Zürich, 15.11.2017
```

m[];



Create the "Contacts API". It's a simple API, where a user can get a quick overview over all contacts resources like person, skills…

The following use cases should be implemented:

#### UC1

Create an CRUD endpoint for managing contacts. A contact should have at least the following attributes and appropriate validation:

- Firstname
- Lastname
- Fullname
- Address
- Email
- Mobile phone number

### UC2

Create a CRUD endpoint for skills. A contact can have multiple skills and a skill can belong to multiple contacts. A skill should have the following attributes and appropriate validation:

- Name
- Level (expertise)



## UC3

Document your API with Swagger.

# **UC4** (optional)

Implement the following security aspects. All bullet points are optional and can be implemented partially.

- Authentication
- Authorization
  - Users can only change their contact
  - Have checks for skills changes (e.g. the current user can't change skills for other users)



## **Notes**

- Use Git and make your code available via GitHub or Bitbucket.
- Use one of the technological stack below.
- Use appropriate tools, libraries and frameworks to make your life easy.

CLI / Boilerplate	URL
Java / Spring Boot	https://spring.io/projects/spring-boot
.NET Core Web API	https://github.com/dotnet/core
Ruby	https://www.ruby-lang.org/en/
Drupal 8	https://www.drupal.org/docs/8/api/restful-web-services-api

