

Backend & full-stack developers Exercise : VaccNow

Who is VaccNpw ?

As a cautious action after Covid-19, VaccNow is an healthcare organization managing the process of Covid-19 vaccine to public, so that the VaccNow is planning to build multi their digital channels for consuming a modern API for basic features. This is planned to be API first approach, of well-tested functions and enabling agility of later modifications.

Technology constraints

- At the digital factory, we currently have a microservices architecture with services mostly written in Spring Boot.
- We would like you to develop a single service using Spring Boot with either Java or Kotlin that exposes several REST endpoints (see next page)
- You can use whatever database and data access method; the application should create the required database structure.
- You should include a README file that has instructions for us to get the solution running on our machines.

What are we looking to test?

- The overall software architecture of the application
- The structure and **quality of the code itself**
- The use of well-known patterns for REST and Spring development
- Your ability to model the problem domain (data models and APIs)
- **Full-Stack developers/leads (only)**, overall Angular project structure and code-quality.
- Bonus points if you include unit tests in your solution.

What are we *not* looking to test?

- We don't expect you to implement authentication or authorization

External Resources

- [Building a RESTful service in Spring Boot](#)
- [Testing in Spring Boot](#)

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Your APIs should provide the following functionality to downstream consumers of the API (in a **RESTful** way):



Availability

- Get a list of all branches
- Get a list of all available vaccines per branch
- Get a specific availability by branch
- Get available time for a branch



Vaccination

- Schedule vaccination timeslot (15 minutes)
- Choose Payment Method Cash, Credit, or Fawry
- Confirm scheduled vaccination by email



Reporting

- Get a list of all applied vaccination per branch
- Get a list of all applied vaccination per day/period
- Show all confirmed vaccinations over a time period

TIP #1: focus on defining a very clear data model for vaccines, schedules, branches, and others. You should include the SQL create table statements etc. in your code base.

TIP #2: invest time in building some 'seed data' that covers all the use cases you want to demonstrate.

ONLY FULL-STACK DEVELOPER/LEADER

TIP #3: build web frontend pages, for some of the journeys as APIs described using Angular 9+.



BONUS POINTS:

Create a new model for 'Vaccine Certificate' and generate an invoice after each vaccination is completed.