

Fullstack Software Engineer Test

Stack:

- Angular
- Java + Spring Boot
- JPA/Hibernate + H2

Time limit: ~2 hours

Allowed resources: Any online resources, documentation, StackOverflow, ChatGPT, etc.

Not allowed: Copy-pasting an already finished project.

Test to build: "Simple Task Manager"

You will build a small **Task Manager** application where a user can create and list tasks.

Requirements

1. Frontend (Angular)

- Create a simple page with a form to **add a new Task**.
 - Fields: title (string, required), description (string, optional).
- On submit, call the backend API to persist the task.
- Display a list of created tasks below the form.

2. Backend (Spring Boot + Java)

- Expose a **REST API** with the following endpoints:
 - POST /api/tasks → receives a task and saves it in the DB.
 - GET /api/tasks → returns the list of all tasks.
- Use **H2 in-memory database** with JPA/Hibernate for persistence.

3. Database

- Task entity should include:
 - id (auto-generated)
 - title (required)
 - description (optional)
 - createdAt (auto-generated timestamp)
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Minimum acceptance criteria

- Working Angular form → API → H2 DB flow.
- `ng serve` for frontend and mvn spring-boot:run (or Gradle equivalent) for backend can be executed.

Bonus / Evaluation Criteria

The result test will be **evaluated not only on functionality** but also on:

1. **Clean code:** readable, modular, minimal duplication.
 2. **SOLID principles:** separation of concerns, layered architecture.
 3. **Error handling & resilience:**
 - Backend validation (e.g., reject empty title).
 - Handle API errors in Angular gracefully (e.g., show error message).
 4. **Good practices:** DTOs vs Entities, Service layer in backend, Angular services for API calls.
 5. **Documentation:** README with setup & run instructions.
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Tips for Candidate

- Keep it **small and functional first** → complete minimum requirements in the first hour.
 - If time remains, improve structure, add error handling, and polish code.
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Delivery Instructions

1. Create a **public GitHub repository** with two folders:
 - frontend/ → Angular project
 - backend/ → Spring Boot project
 2. Add a README.md in the root folder with:
 - Setup instructions (how to run backend and frontend).
 - Any notes on what is working, what is missing, or what you would improve with more time.
 3. Once done, **send the GitHub repository link** by replying to the HR email.
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Note to Candidate

We **do not expect a perfect, production-ready application** within 2 hours.

Focus first on completing the **minimum requirements**. Extra effort in clean code, structure, and error handling is valued but **not mandatory**.

It's more important to see how you approach problems, structure your code, and communicate your choices than to have 100% of the features polished.