Exercise 9: Spring Boot App

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Exercise 9: Creating a Spring Boot Application
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Scenario:
Build a REST■enabled LibraryManagement system with Spring Boot.

1.  Generate project (Spring Initializr or Maven):

    groupId: com.library
    artifactId: LibraryManagement
    dependencies: Spring Web, Spring Data JPA, H2 Database

2.  application.properties

    spring.h2.console.enabled=true
    spring.datasource.url=jdbc:h2:mem:librarydb
    spring.jpa.hibernate.ddl-auto=update

3.  Book entity

    @Entity
    public class Book {
        @Id @GeneratedValue
        private Long id;
        private String title;
        private String author;
    }

4.  Repository

    public interface BookRepository extends JpaRepository<Book, Long> {}

5.  Controller

    @RestController
    @RequestMapping("/books")
    public class BookController {

        @Autowired
        private BookRepository repo;

        @GetMapping public List<Book> all() { return repo.findAll(); }
        @PostMapping public Book save(@RequestBody Book b) { return repo.save(b); }
        @DeleteMapping("/<built-in function id>") public void delete(@PathVariable Long id) { rep
    }

6.  Run with: mvn spring-boot:run  (or IDE)

    Test endpoints:
        GET  http://localhost:8080/books
        POST http://localhost:8080/books  { "title":"1984","author":"Orwell" }
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