**Exercise 9: Creating a Spring Boot Application**

**Scenario:** You need to create a Spring Boot application for the library management system to simplify configuration and deployment.

**Steps:**

1. **Create a Spring Boot Project:**
   * Use Spring Initializr to create a new Spring Boot project named LibraryManagement.
2. **Add Dependencies:**
   * Include dependencies for Spring Web, Spring Data JPA, and H2 Database in pom.xml.
3. **Create Application Properties:**

spring.datasource.url=jdbc:h2:mem:testdb

spring.datasource.driverClassName=org.h2.Driver

spring.datasource.username=sa

spring.datasource.password=password

spring.jpa.database-platform=org.hibernate.dialect.H2Dialect

1. **Define Entities and Repositories:**

@Entity

public class Book {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private Long id;

private String title;

// Getters and setters

}

public interface BookRepository extends JpaRepository<Book, Long> {

}

1. **Create a REST Controller:**

@RestController

@RequestMapping("/books")

public class BookController {

@Autowired

private BookRepository bookRepository;

@GetMapping

public List<Book> getAllBooks() {

return bookRepository.findAll();

}

@PostMapping

public Book createBook(@RequestBody Book book) {

return bookRepository.save(book);

}

// Additional CRUD methods

}

1. **Run the Application:**
   * Run the Spring Boot application and test the REST endpoints.