

01 - Spring Data Rest Introduction

Spring Data REST is a part of the Spring framework that automatically exposes RESTful endpoints for repositories defined by Spring Data.

- It eliminates the need to manually create controller and service layers.
- It automatically handles basic CRUD operations for entities based on repository interfaces, making the development process faster and more efficient.

👉 Advantages of Spring Data Rest:

1. Automatic RESTful API Generation:

- Spring Data REST automatically exposes REST endpoints for repositories.
- There's no need to create Controller and Service classes manually.

2. Repository Exposure:

- It works directly on repository interfaces like CrudRepository, JpaRepository, and PagingAndSortingRepository, exposing common operations such as:
 - GET for fetching resources.
 - POST for creating new resources.
 - PUT/ PATCH for updating resources.
 - DELETE for removing resources.

3. HATEOAS:

- Hypermedia As The Engine of Application State (HATEOAS) allows clients to navigate between related resources easily by following hypermedia links included in the response.

4. Customization:

- While Spring Data REST provides default implementations, but still we can customize the endpoints, and add validations using event listeners, projections, and custom queries if needed.

5. Paging and Sorting:

- By using `PagingAndSortingRepository`, Spring Data REST can handle pagination and sorting out of the box.

6. Repository Events:

- It allows you to capture and handle events such as `BeforeCreate`, `AfterCreate`, `BeforeSave`, and `AfterDelete` to add custom logic at various stages of the repository lifecycle.

7. Ease of Use:

- It eliminates the need for boilerplate code.
- REST endpoints can be customized through annotations like `@RepositoryRestResource`.