SME Explanation

1. What happens in the controller method?

i) The @RequestMapping("/country") annotation maps HTTP GET requests to the /country URL.

ii)Within the getCountryIndia() method, Spring uses ClassPathXmlApplicationContext to load the country.xml configuration file from the classpath.

iii)It then retrieves the bean defined with the ID "in" from the XML configuration and returns it as an instance of the Country class.

2. How is the bean converted to JSON?

i)The controller method returns a Country Java object.

ii)Spring Boot, through its auto-configuration, uses the Jackson library to handle JSON conversion.

iii)Since the class is annotated with @RestController, the returned object is automatically serialized into JSON and included in the HTTP response.

In Chrome:

- Open Google Chrome
- Go to URL: http://localhost:8083/country
- Go to Inspect and then click Network tab in DevTools
- Refresh the page
- We'll see a request named hello
- Click on the hello row
- Select the Headers tab

Output:

In Postman:

- Open Postman
- Set Method to GET
- Enter URL: http://localhost:8083/country
- Click Send
- We'll get the response: Hello World!!

Output:

Pretty-print ☐

{"code":"IN","name":"India"}

Elements   Console   Sources   **Network**   Performance   Memory   Application   Priva

⏺ ⊘ ▼ 🔍 ☐ Preserve log   ☐ Disable cache   No throttling   ▼ ⇄ ⬆ ⬇

▽ Filter   ☐ Invert   More filters ▼   All   Fetch/XHR   Doc   CSS   JS   For

| 10 ms | 20 ms | 30 ms | 40 ms | 50 ms | 60 ms | 70 ms |

Name   ✕   **Headers**   Preview   Response   Initiator   Timing   Cookies

{} co...   ▼ General

Request URL	http://localhost:8083/country
Request Method	GET
Status Code	🟢 200 OK
Remote Address	[::1]:8083
Referrer Policy	strict-origin-when-cross-origin

▼ Response Headers   ☐ Raw

Connection	keep-alive
Content-Type	application/json
Date	Sat, 12 Jul 2025 15:10:38 GMT
Keep-Alive	timeout=60
Transfer-Encoding	chunked

▼ Request Headers   ☐ Raw

Accept	text/html,application/xhtml+xml,application/xml;q=0.9,i cation/signed-exchange;v=b3;q=0.7
Accept-Encoding	gzip, deflate, br, zstd
Accept-Language	en-US,en;q=0.9
Cache-Control	max-age=0
Connection	keep-alive

HTTP   **http://localhost:8083/country**

GET   ⌄   http://localhost:8083/country

Params   Authorization   Headers (6)   Body   Scripts   Settings

Query Params

	Key	Value
	Key	Value

Body   Cookies   Headers (5)   Test Results   🕘

{} JSON ⌄   ▷ Preview   ⚙ Visualize   ⌄

```
1   {
2       "code": "IN",
3       "name": "India"
4   }
```

HTTP http://localhost:8083/country

GET ∨	http://localhost:8083/country

Params   Authorization   Headers (6)   Body   Scripts   Settings

Query Params

	Key	Value	Descr
	Key	Value	Descr

Body   Cookies   **Headers (5)**   Test Results   ⟲

Key	Value
Content-Type	application/json
Transfer-Encoding	chunked
Date	Sat, 12 Jul 2025 15:16:30 GMT
Keep-Alive	timeout=60
Connection	keep-alive