Debugging REST Endpoints

Debugging **REST endpoints** in a Spring Boot application is super valuable when you're dealing with controller logic, request parameters, or service/database interactions.

Here's a **step-by-step guide to debugging REST endpoints in Spring Tool Suite (STS)**, including breakpoints, variable inspection, and real-time testing with Postman

1. Set Breakpoints

Set breakpoints at key points in your controller and service:

User user = userService.findUserById(id); //controller

User user = new User(id, "Shekhar", "shek@gmail.com"); //service

Shortcut: Ctrl + Shift + B
(Click on the line number or use the shortcut)

2. Run in Debug Mode

- **Right-click your Spring Boot app (main class)**
- **Select: Debug As → Spring Boot App**

Shortcut: F11

3. **Trigger the Endpoint**

Use a tool like Postman,

GET **http://localhost:8080/api/users/1**

When the request hits the breakpoint, **execution pauses**.

4. Inspect Variables

- Hover over variables like id and user
- Use the **Variables** tab to see values
- Modify on-the-fly (yes, you can edit values while paused!)

Shortcut: Ctrl + Shift + I → Inspect selected variable

5. Step Through the Request Flow

Action	Shortcut	What it Does
Step Over	F6	Execute current line
Step Into	F5	Enter the method (e.g., into service)
Step Return	F7	Exit current method
Resume Execution	F8	Continue until next breakpoint