

# Spring Boot **Actuator** (Production-ready features)

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# Spring Boot Actuator

1. Spring Boot Actuator module provides production-ready features such as monitoring, metrics and health checks.
2. The Spring Boot Actuator enables you to monitor the application using HTTP endpoints and JMX.
3. Spring Boot Provides a spring-boot-starter-actuator library to auto-configure Actuator.

# Commonly used Actuator endpoints

1. Actuator **/info** endpoint
2. Actuator **/health** endpoint
3. Actuator **/beans** endpoint
4. Actuator **/conditions** endpoint
5. Actuator **/mappings** endpoint
6. Actuator **/configprops** endpoint
7. Actuator **/metrics** endpoint
8. Actuator **/env** endpoint
9. Actuator **/threaddump** endpoint
10. Actuator **/loggers** endpoint
11. Actuator **/...** endpoint

# The /info Endpoint

If you added any information about the application in application.properties then we can view it using **/info** endpoint:

<http://localhost:8080/actuator/info>

# The /health Endpoint

The /health endpoint shows the health of the application, including the disk space, databases and more.

<http://localhost:8080/actuator/health>

# The /beans Endpoint

The **/beans** endpoint shows all the beans registered in your application, including the beans you explicitly configured and those auto configured by Spring Boot.

<http://localhost:8080/actuator/beans>

# The /conditions Endpoint

The /conditions endpoint shows the auto configuration report, categorised into positiveMatches and negativeMatches

<http://localhost:8080/actuator/conditions>



# The /mappings Endpoint

The /mappings endpoint shows all the **@RequestMapping** paths declared in the application.

This is very helpful for checking which request path will be handled by which controller method.

<http://localhost:8080/actuator/mappings>



# The /configprops Endpoint

The /configprops endpoint offers all the configuration properties defined by @ConfigurationProperties bean, including your configuration properties defined in the application.properties or YAML files.

<http://localhost:8080/actuator/configprops>

# The /metrics Endpoint

The /metrics endpoint shows various metrics about the current application such as how much memory it is using, how much memory is free, the size of the heap used, the number of threads used, and so on.

<http://localhost:8080/actuator/metrics>

# The `/env` Endpoint

The `/env` endpoint exposes all the properties from the Spring's **ConfigurableEnvironment** interface, such as a list of active profiles, application properties, system environment variables and so on.

<http://localhost:8080/actuator/env>

# The /threaddump Endpoint

Using /threaddump endpoint, you can view your application's thread dump with running threads details and JVM stack trace.

<http://localhost:8080/actuator/threaddump>

# The /loggers Endpoint

The /loggers endpoint allows you to view and configure the log levels of your application at runtime.

<http://localhost:8080/actuator/loggers>

You can view the logging level of the specific logger:

<http://localhost:8080/actuator/loggers/{name}>

**Ex:**

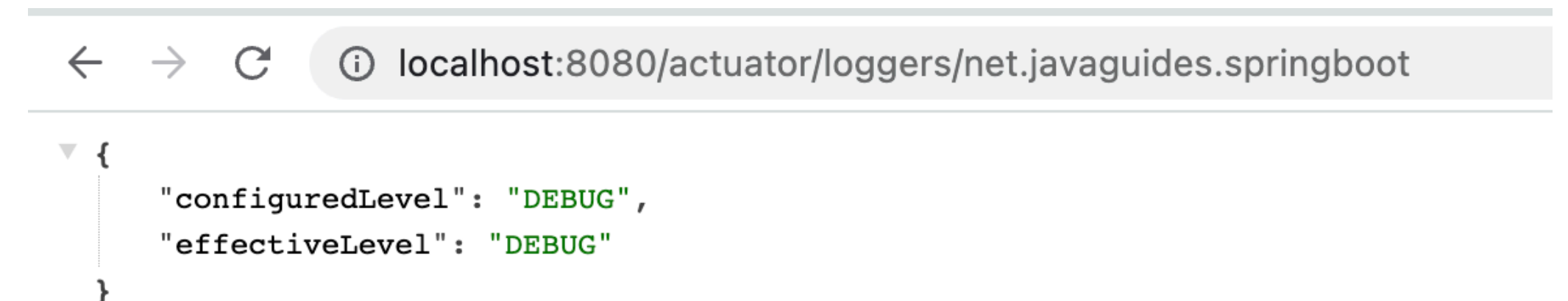
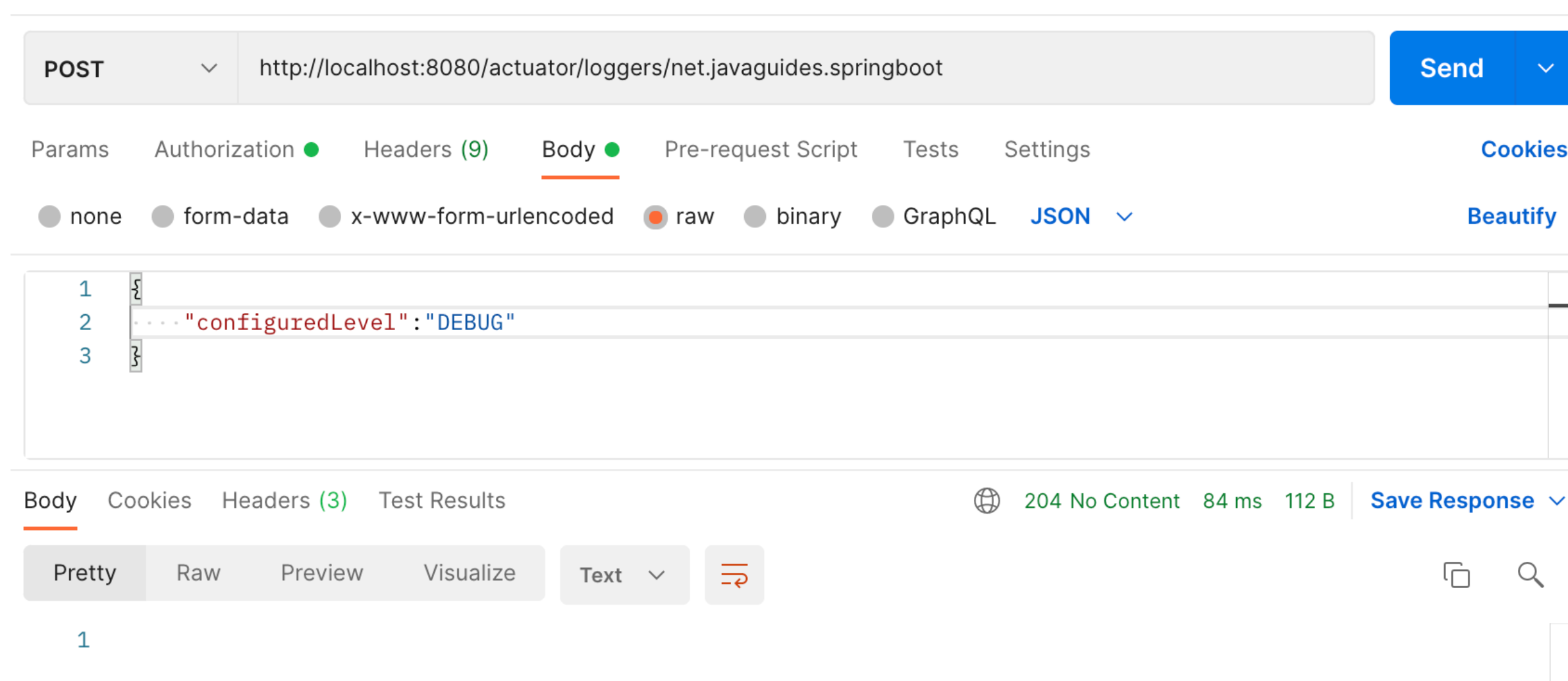
<http://localhost:8080/actuator/loggers/net.javaguides.springboot>



# The /loggers Endpoint

You can update the logging level of the logger at a runtime by sending a POST request to URL: `http://localhost:8080/actuator/loggers/{name}`

Ex: `http://localhost:8080/actuator/loggers/net.javaguides.springboot`





# The /shutdown Endpoint

The /shutdown endpoint can be used to gracefully shut down the application.

This endpoint not enabled by default. You can enable this endpoint by adding this property in application.properties file:

**Management.endpoint.shutdown.enabled=true**

After adding this property, we need to send the HTTP POST request to below endpoint:

<http://localhost:8080/actuator/shutdown>

# The /shutdown Endpoint

Ex:

The screenshot displays a REST client interface with the following details:

- Request Method:** POST
- URL:** http://localhost:8080/actuator/shutdown
- Send Button:** A blue button labeled "Send" with a dropdown arrow.
- Request Body:** The "Body" tab is selected, showing "This request does not have a body".
- Response:** The "Body" tab is selected, showing a JSON response: 

```
{  "message": "Shutting down, bye..."}
```
- Response Status:** 200 OK, 142 ms, 227 B.
- Save Response:** A blue button labeled "Save Response" with a dropdown arrow.
- Format:** The response is displayed in "Pretty" format.

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3. Watch the console log for spring boot application shutdown