Overview of Spring Boot’s Internal Architecture

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Learning Objectives in this Lesson

• Understand the internal software architecture of Spring Boot

This architecture is similar (though not identical) for WebMVC & WebFlux
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- Internally Spring Boot leverages Servlets & associated HTTP request/response processing

See [www.javadevjournal.com/spring-mvc/spring-controllers](www.javadevjournal.com/spring-mvc/spring-controllers)
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Clients send HTTP requests (e.g., GET, POST, etc.)

See developer.mozilla.org/en-US/docs/Web/HTTP/Methods
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The dispatcher converts the request contents into an internal data structure

See www.baeldung.com/spring-dispatcherservlet
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The internal data structure is forwarded to a handler

See docs.oracle.com/javaee/7/api/javax/servlet/http/HttpServletRequest.html
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The handler dispatches the request on the associated REST controller

See spring.io/guides/tutorials/rest
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The REST controller forwards to the service and/or model business logic

See www.tutorialspoint.com/spring_boot/spring_boot_service_components.htm
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The business logic passes the response back to the controller

These interactions are performed by Java method calls
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The controller passes the response back to the dispatcher

See docs.oracle.com/javaee/7/api/javax/servlet/http/HttpServletResponse.html
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The dispatcher converts this response into an HTTP response

See www.toolsqa.com/client-server/http-response
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The HTTP response is then sent back to the client.
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- Spring Boot implements the Model-View-Controller (MVC) pattern

The client provides the "view" in this model

See [en.wikipedia.org/wiki/Model-view-controller](en.wikipedia.org/wiki/Model-view-controller)
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- Spring Boot implements the Model-View-Controller (MVC) pattern

The server is often a “API gateway” to a range of backend microservices
End of Overview of Spring Boot’s Internal Architecture