

Spring Boot Syllabus

Spring boot application was evolved with a motto of avoiding complicated steps while creating a java application with updated development models provided by Spring boot. Training will be covered with the latest Spring boot 2.0 version updates.

Why you must learn spring boot

- There is no need for WAR files while embed tomcat, jetty, undertow.
- Creating a Standalone application.
- Purpose of simplifying build configuration where starter dependencies are available with options.
- Configuring spring and third parties libraries automatically.
- Comes with features like metrics, health checks, externalized configuration.
- No need to generate code.
- No need for XML configuration. Easily Integrate with Spring JDBC, Spring ORM, Spring Data, Spring Security, etc.

Spring boot overview

- What is Spring boot?
- System requirement and configuration.
- Maven configuration.
- What is a starter and spring parent?
- Spring boot manual installation.
- @EnableAutoConfiguration annotation.
- Main method configuration.
- Running a simple boot web application.
- Creating an executable jar.
- Deployment
- Deploying in tomcat.
- Changing port and other configuration.
- Jetty server configuration.
- Packing your application for the production environment.

Spring Web

- Structuring your application.
- Integrating spring MVC Rest application.
- Importing old XML configuration.
- Importing multiple configurations.
- Autoconfiguration.
- @SpringBootApplication annotation.

Spring boot devtools

- Automatic restart.
- Excluding resources.
- Watching additional paths.
- Disabling restart.
- Using a trigger file.

Customizing

- Customizing Spring banners.
- Customizing Spring favicon.
- Externalized configuration.
- Properties file.
- Yaml file.

Profiling

- Adding active profiles.
- Pro-grammatically setting profiles.

Logging

- Log format.
- Console output.
- Color-coded output.
- File output.
- Log Levels.
- Custom log configuration.

Spring boot web application

- MVC Autoconfiguration.
- HttpResponseMessageConverters.
- Custom JSON Serializer and Deserializer.
- MessageCodesresolver.
- Serving static content.
- Custom Favicon.
- Error handling.
- Custom error page.
- CORS support.
- Registering servlet, filter, listener etc..
- JSP limitation.
- Write a JSON REST service.
- Write an XML REST service.
- Customize the Jackson ObjectMapper.
- Customize the @ResponseBody rendering.

- Handling Multipart File Uploads.
- Switch off the Spring MVC DispatcherServlet.
- Switch off the Default MVC configuration.
- Customize ViewResolvers.

Working SQL database

- Mysql configuration.
- Oracle Configuration.

Working with NoSQL technologies

- MongoDB.
- Connecting to a MongoDB database.
- MongoTemplate.
- Spring Data MongoDB repositories.
- Embedded Mongo.

JMS – ActiveMQ support

- Artemis support.
- Using a JNDI ConnectionFactory.
- Sending a message.
- Receiving a message.

JMS-AMQP

- RabbitMQ support.
- Sending a message.
- Receiving a message.

Creating your own starter

- Naming.
- Autoconfigure module.
- Starter module.

Spring Boot Actuator

- Enabling production-ready features.
- Endpoints.
- Customizing endpoints.
- Hypermedia for actuator MVC endpoints.
- CORS support.
- Adding custom endpoints.
- Health information.
- Security with health indicators.
- Auto-configured health indicators.

- Writing custom health indicators.
- Loggers.
- Metrics.
- Auditing.
- Tracing.
- Process monitoring.

Embedded Servlet containers

- Add a Servlet, Filter or Listener to an application.
- Add a Servlet, Filter or Listener using a Spring bean.
- Disable registration of a Servlet or Filter.
- Add Servlets, Filters, and Listeners using classpath scanning.
- Configure Tomcat.
- Use Jetty instead of Tomcat.
- Configure Jetty.
- Change the HTTP port.

Hot swapping

- Reload static content.
- Reload templates without restarting the container.

Traditional deployment

- Create a deployable war file.
- Create a deployable war file for older servlet containers.
- Convert an existing application to Spring Boot.
- Deploying a WAR in an Old (Servlet 2.5) Container.