Spring Boot Tutorial

* Spring Boot is an open source Java-based framework used to a Micro Service. It is developed by Pivotal team. It is easy to create stand-alone and production ready spring applications using Spring Boot. Spring boot contains a comprehensive(toàn diện) infrastructure support for developing a micro service and enables you to develop enterprise-ready applications that you can “just run”

Audience (khán giả)

* This tutorial is designed for Java developers to understand and develop production-ready using spring applications with minimum configurations. It explores (khám phá) major features of Spring Boot such as Starters, Auto-configuration, Beans, Actuator and more. By end of this tutorial, you will gain(nhận được) an intermediate level of expertise(chuyên môn) in Spring Boot.

Prerequisites(điều kiện tiên quyết)

* This tutorial is written for readers who have a prior(trước) experience of Jav, Spring, maven and Gradle. You can easily understand the concepts of Spring Boot if you have knowledge on these concepts. It would be an additional advantage if you have an idea about writing a RESTful Web Service. If you are a beginner, we suggest you go to through tutorials related to these concepts before you start with Spring Boot.

Spring Boot – Introduction

* Spring Boot is an open source Java-based framework used to create micro service. It is developed by Pivotal Team and is used to build stand-alone and production ready spring applications. This chapter will give you an introduction to Spring Boot and familiarizes(làm quen) you with its basic concepts.
* What is Micro Service?

Micro Service is an architecture that allows the developers to develop and deploy services indenpently. Each service running has its own process and this achieves the lightweight model to support business applications.

* Advantages:

Micro services offers the following advantages to its developers  
Easy deployment

Simple scalability

Compatible with containers

Minimum configuration

Lesser production time

* What is Spring Boot?

Spring Boot provides a good platform for Java developers to develop a stand-alone and production-grade spring application that you can just run. You can get starter with minimun configurations without the need for and entire spring configuration setup.

* Advantages

Spring Boot offers the following advantages to its developers

Easy to understand and develop spring applications

Increases(tăng) productivity(năng xuất)

Reduces(giảm) the devlopment time

* Goals  
  Spring Boot is designed with the following goals:

To advoid complex XML configuration in Spring

To develop a production ready Spring applications in an easier way

To reduce the development time and run application independently

Offer an easier way of getting started with application

* Why Spring Boot?

You can choose Spring Boot because of the features and benefits it offers as given here

It provides a flexible way to configure Java Beans, XML configuraions, and Database Transactions.

It provides a powerful batch(một lô, hàng loạt) processing and manages REST endpoints.

In Spring Boot, everything is auto configured, no manual configuraions are needed.

It offers annotaion-based spring application

Eases dependency management

It includes Embedded Servlet Container

How does it work?

* Spring Boot automatically configures your application based on the dependencies you have added to the project by using @EnableAutoConfiguration annotaion. For example, if MySQL database is on your classpath, but you have not configured any database connection, then Spring Boot auto-configures an in-memory database.
* The entry point of the Spring Boot application is the class contains @SpringBootApplication annotation and the main method.
* Spring Boot automaticcally scans all the components included in the project using @ComponentScan anntation
* Spring Boot Starters

Handling dependency management is a difficult task for big projects. Spring Boot resolves this problem by providing a set of dependencies for developers convenience (thuận lợi).