

SPRING FRAMEWORK COURSE

CURRICULUM OF SPRING FRAMEWORK



Author: Ubaldo Acosta





SPRING FRAMEWORK COURSE

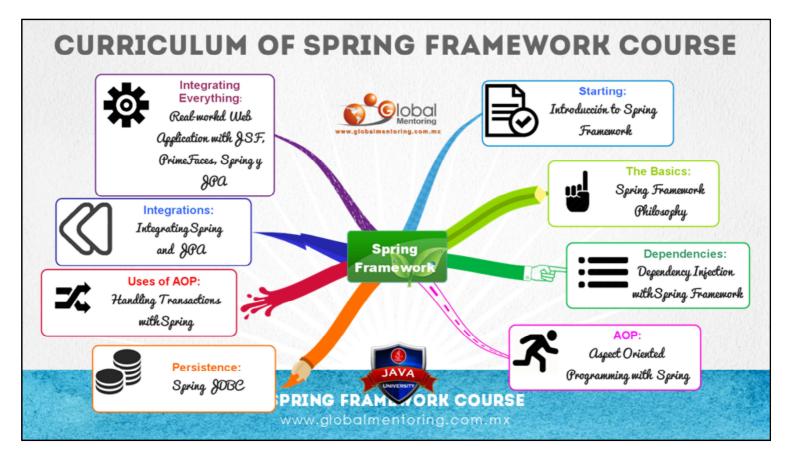
www.globalmentoring.com.mx

Hello, I hope you're ready to begin.

Let's review the general agenda of the SPRING FRAMEWORK COURSE.

Are you ready? Let's go!





We are going to review the general content of the Spring Framework course:

Starting.- <u>Introduction to the Spring Framework</u>: In this section we will study an introduction to the Spring framework. We will study some of the features of this incredible framework. We will review a 3-layer architecture and the main role played by the Spring Framework. We will discuss how he redefined and streamlined the development of business applications in Java. We will also carry out the installation of the tools that we will use throughout the course and we will create a first HelloWorld project with Spring Framework.

The bases.- Spring Framework Philosophy: In this section we will review the philosophy of Spring, which promotes a high cohesion and a low coupling between its components or Java classes. In addition to using concepts such as Aspect Oriented Programming (AOP). We will also discuss the concept of the Spring factory, as well as the life cycle of the beans in Spring. We will do an exercise to put these concepts into practice.

Dependencies.- <u>Injection of Dependencies with Spring</u>: We will review the concept of Dependency Injection or in English Dependency Injection (DI). We will see what the control investment consists of and how Spring implements it in its factory or also known as Bean Factory. We will create an exercise to put this theme into practice.

AOP.- <u>Aspect-Oriented Programming</u>: In this section we will analyze the concept of Aspects-Oriented Programming (AOP) and how Spring implements this concept. In addition we will see the concept of Transversal Functionality or Cross Cutting and how it relates to AOP. We will also study the AOP terminology. We will do an exercise to put into practice the use of AOP with Spring Framework.

Persistence.- <u>Spring JDBC</u>: In this section we will study the Spring JDBC theme and how it simplifies data access to the Spring framework by improving several points of the JDBC API, for example, exception handling, JDBC template classes, among many more improvements. We will also review the callback methods in Spring and how they help us when using Spring JDBC. We will create several exercises to put all these concepts into practice.

Applications of AOP.- <u>Management of Transactions with Spring</u>: We will see the handling of transactions with Spring, and the characteristics of a transaction. We will see how to define a Transaction Manager object in the Spring Framework. We will review the types of Transaction Manager objects that we can use in Spring, and we will see the attributes of a transaction. We will carry out an exercise to put these concepts into practice.

Integrations.- <u>Spring integration with JPA</u>: We will review a 3-layer architecture, and the role played by Spring and JPA in this architecture. We will also see how Spring integrates with JPA and the advantages of this integration. In this exercise we will review an integration locally, and in the following exercise we will use an application server to use JTA in this integration. We will create an exercise to put these concepts into practice.

Integrating Everything.- Real World Web Application with JSF, PrimeFaces, Spring and JPA: We will create a 3 layer application, where we will use JSF with PrimeFaces as a presentation layer, and we will see the integration with the Spring framework in the business layer, and we will use JPA in the data layer configuring it to use JTA (Java Transaction API) to connect to a database from a Java application server. This application will serve as the basis for your own Java Web and Business applications combining the mentioned technologies.

Broadly speaking, this is the general agenda of the Spring Framework course. These are just some of the many more topics we will learn throughout this course. So if you're ready, let's start immediately.



ONLINE COURSE

SPRING FRAMEWORK

Author: Ubaldo Acosta





SPRING FRAMEWORK COURSE

www.globalmentoring.com.mx

At Global Mentoring, we promote the passion for Java Technology. We invite you to visit our website where you will find Java Online courses from Basic, Intermediate and Advanced Levels, and thus become an expert Java programmer.

Here we present our online courses:

- Java Fundamentals
- Java Programming
- Java with JDBC
- HTML, CSS and JavaScript
- Servlets and JSP's

- Struts Framework
- SPRING FRAMEWORK & JPA
- Spring Framework
- JavaServer Faces
- Java EE (EJB, JPA and Web Services)

www.globalmentoring.com.mx

