

Curso de Spring (The Spring Framework)

Descripción: Nuestro curso Spring Framework permite a los desarrolladores con experiencia en Java utilizar el Framework Spring Framework para crear aplicaciones complejas y sencillas. Spring framework que facilita toda clase de desarrollos Java incluyendo cualquier nivel de aplicaciones de múltiples capas. En este curso nos centramos en los módulos Core y MVC, con una ligero enfoque hacia persistencia con los módulos de DAO y ORM.

Audiencia: Programadores que necesitan diseñar y desarrollar Java para Web usando el Framework Spring.

Prerrequisitos: Programación Java o nuestro curso de Java J2SE, Programación Java Web o nuestro Diplomado de Programación Java con Oracle y conocimientos básicos de XML.



Contenido

1.- INTRODUCTION TO SPRING

- The Challenge of Enterprise Applications
- Shortcomings of Java/Java EE
- What is Spring?
- The Spring Components
- The Spring Distribution
- Spring Introduction
- Managing Beans
- A Basic Spring Application
- Some Bean Classes
- Configuration Metadata
- Declaring Beans
- The Spring Container
- Working with Spring
- Why Bother?
- Some Important BeanFactory Methods
- Dependencies and Dependency Injection
- Dependencies Between Objects
- Dependency Inversion Principal
- Dependency Injection (DI) in Spring
- Dependency Injection Configuration
- Advantages of Dependency Injection
- Dependency Injection Reduces Coupling

2.- MORE ABOUT BEAN PROPERTIES

- Working with Properties
- Configuring Value Based Properties
- Using Value Based Properties
- Property Conversions
- Constructor Injections
- Constructor Argument Resolution
- Setter Injection vs. Constructor Injection
- Collection Valued Properties
- Working with Collections
- Configuring <list> and <set> Properties
- Configuring Collections of Bean References
- Map Valued Properties
- java.util.Properties Valued Properties
- Additional Capabilities
- Factory Methods
- Instance Factory Methods
- Bean Aliases
- Bean Definition Inheritance
- Autowiring
- Autowiring byType
- Pros and Cons of Autowiring
- To Autowire or Not to Autowire

5.- ASPECT ORIENTED PROGRAMMING (AOP)

- AOP Overview
- The Issue with Crosscutting Concerns
- Crosscutting Illustrated
- Aspect Oriented Programming (AOP) Defined
- Spring AOP Introduction
- Spring AOP with AspectJ Annotations
- Defining an Aspect with @AspectJ
- Defining a Pointcut
- Defining Advice
- Configuring Spring
- A Program that Triggers Advice
- More on How Spring AOP Works
- Pointcut Expressions and Advice
- Pointcut Expressions
- Sample Execution Designator Patterns
- Other Designators Available in Spring AOP
- Combining Pointcut Expressions
- Kinds of Advice
- A Brief Note on Annotations
- Annotation Definition
- Using Annotations
- XML Based AOP Support
- Defining Aspects Using XML
- Specifying Advice with XML
- Other Considerations
- Spring Proxies and Direct Invocation
- More on Spring Proxies
- Issues with AOP
- Is AOP Worth It
- Other AOP Capabilities and Functionality

6.- TRANSACTIONS

- Transaction Managers
- Configuring Transaction Managers
- JTA Transaction Manager
- Spring Declarative Transaction Management
- Transactional Scope
- Transaction Attributes for Propagation
- MANDATORY
- NESTED
- NEVER
- NOT_SUPPORTED
- REQUIRED
- REQUIRES_NEW
- SUPPORTS
- Transaction Attributes – Some Choices
- Specifying Transaction Attributes
- Additional Transactional Attributes
- Rolling Back and Exceptions
- XML Configuration
- Linking Advice with Pointcuts
- <tx:method> Attributes

3.- THE SPRING CONTAINER AND API

- ApplicationContext
- ApplicationContext Interface
- ApplicationContext Implementations
- Constructors
- Using an ApplicationContext
- Spring Resource Access
- Built-in Resource Implementations
- Bean Scope and Lifecycle
- Bean Scope
- Specifying Bean Scope
- Inner Beans
- Compound Names
- Depends On
- Bean Creation Lifecycle
- Bean Creation Lifecycle Details
- Using the Lifecycle Interfaces for Beans
- Bean Destruction Lifecycle
- BeanPostProcessor
- Event Handling
- MessageSources
- Issues with Messages
- Resource Bundles
- Defining Resource Bundles
- Using Resource Bundles and MessageSource
- Localization/Internationalization
- Paramaterizing Messages
- Annotation Driven Configuration
- Annotations in Spring
- Enabling Spring Annotations
- DI Using @Resource
- @Resource – Additional Uses
- @Component and Auto-Detecting Beans
- Complete Declarations Using Annotations
- Other Stereotype Annotations
- Lifecycle Annotations
- XML Config – Annotations and Scanning
- Annotation Configuration – Pro/Con
- A Note on the XML Configuration
- A Brief Note on Annotations

7.- SPRING AND THE WEB

- Integration with Java EE
- Spring and Java EE
- Java EE Web Applications
- Web Application Structure
- Web Application Components
- ApplicationContext and Web Apps
- Configuring ContextLoaderListener
- Using the Application Context
- Spring MVC Basics
- What is Spring MVC?
- MVC Architecture
- MVC Pattern Flow
- Spring MVC Architecture
- Simple Search App Model – Servlets/JSP
- Simple Search App Model – Spring MVC
- DispatcherServlet
- DispatcherServlet Initialization
- Command Controllers
- Very Simple Command Controller
- Configuring the Command Controller
- Forms and View Resolvers
- View Resolvers
- A JavaBean Command Class
- Working with Forms
- Defining a FormController
- Configuring a FormController
- The Response View
- HandlerMappings
- Spring MVC Form Tags
- Rendering the Form via Spring MVC
- Flow for Rendering Form
- Initializing the Form
- Form Initialized and Rendered
- Annotation-Based Configuration
- Controller and Request Annotations
- Annotations and Forms
- Annotations and Form Initialization

4.- DATABASE ACCESS WITH SPRING

- Issues with JDBC
- Problems Using JDBC Directly
- Let's Review Some Simple JDBC Usage
- Simple Query on the Database
- Problems with the Previous Approach
- Spring Support for the DAO Pattern
- Spring DAO Support
- The Spring Database API
- The JdbcTemplate Class
- The JdbcDaoSupport Class
- DataSources
- Spring Jdbc Exception Hierarchy
- DAO Based on Spring Classes
- Configuring a DataSource
- Looking up a DataSource in JNDI
- Building a DAO Without the Support Class
- Queries and Updates
- Querying with JdbcTemplate
- Mapping Result Rows to Objects
- Defining a RowMapper Class
- Inserting/Updating
- SimpleJdbcTemplate
- The SimpleJdbcTemplate Class
- The SimpleJdbcDaoSupport Class
- Querying with SimpleJdbcTemplate
- Defining a ParameterizedRowMapper
- Inserting/Updating
- Using Spring with Hibernate
- Hibernate Overview
- Typical Hibernate Configuration File
- Using Hibernate Directly
- Spring Support for Hibernate
- HibernateTemplate
- LocalSessionFactoryBean
- HibernateDaoSupport
- Configuring a Hibernate DAO
- Querying with HibernateTemplate
- UsingHibernateCallback
- Contextual Sessions
- Spring Free DAO
- What Approach to Use
- Support for Java Persistence API (JPA)

8.- SPRING SECURITY OVERVIEW

- Spring Security
- Spring Web Security – web.xml
- Spring Web Security – Spring Configuration
- More <http> Capabilities
- Other Authentication Providers
- Method Security
- Method Security – Annotations
- Method Security – Pointcut Expressions
- Method Security – XML Configuration

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Duración aproximada:

30 horas

Lugar:

Altadena 26. Col. Nápoles, México, D .F.

Incluye:

Material original del curso en inglés técnico, estacionamiento y servicio de cafetería.

Nota:

El material que se entrega está en inglés técnico.

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Formas y condiciones de pago:

Para la inscripción, aplicación de los descuentos y aseguramiento de que el diplomado se impartirá en las fechas pactadas se requiere el pago anticipado 2 semanas antes de la fecha de inicio con depósito o transferencia bancaria a la siguiente cuenta:

- Depósito en Banamex cuenta 4923239 Suc. 575 a nombre de Desarrollo y Capacitación en Internet, S. A. de C. V. (CLABE en caso de transferencia electrónica vía Internet 002180057549232394)
- cheque a nombre de Desarrollo y Capacitación en Internet, S. A. de C. V.