

## **HIBERNATE FRAMEWORK COURSE**

# CURRICULUM OF HIBERNATE FRAMEWORK



Author: Ubaldo Acosta





#### **HIBERNATE FRAMEWORK COURSE**

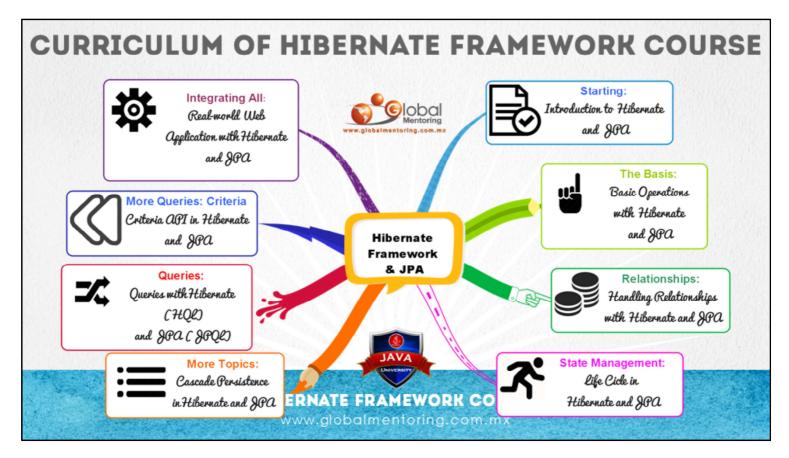
www.globalmentoring.com.mx

Hello, I hope you're ready to begin.

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

Are you ready? Let's go!





We will review the general content of the HIBERNATE FRAMEWORK & JPA (Java Persistence API) course:

**Starting.-** Introduction to Hibernate Framework & JPA: In this section we will study an introduction to Hibernate Framework & JPA and how these two technologies are related. We will also see the concept of ORM (Object-Relational-Mapping) which is the model on which Hibernate and JPA are based. We will also review an architecture of 3 business layers, and we will see the role played by Hibernate and JPA within this enterprise architecture.. We will also carry out the installation of the tools we are going to use throughout the course and we will create the first HelloWorld project with Struts Framework.

The bases.- Basic Operations with Hibernate and JPA: In this section we will review the basic operations with Hibernate and JPA. These basic operations are: Select data, insert, update and delete data. We will do an exercise to put these concepts into practice.

Relationships.- <u>Management of Associations with Hibernate and JPA</u>: We will review the concept of association management with Hibernate and JPA. We will create an entity-relationship scheme where we will review the types of associations with Hibernate and JPA. We will review the associations of 1 to 1, 1 to Many, and Many to Many relationships. We will create an exercise to put these associations into practice.

**State Management.-** Life Cycle in Hibernate and JPA: In this section we will analyze the life cycle of Entity objects when we use Hibernate and JPA. We will see how to persist an object, how to recover it, how to modify it and how to eliminate it. We will carry out an exercise to put into practice the life cycle of the objects of Entity.

More topics.- Persistence in Cascade with Hibernate and JPA: In this section we will study the concept of persistence in cascade, which is one of the topics that can help us the most when objects of Entity persist when we use Hibernate and JPA. We will create an exercise to put this concept into practice.

**Queries.-** Queries with Hibernate and JPA: We will see the question of queries using the query language of Hibernate and JPA. In Hibernate it is known as HQL (Hibernate Query Language) and in JPA it is known as JPQL (JPA Query Language). We will see the characteristics of these languages, and in turn we will perform several exercises to put these concepts into practice.

More queries.- <u>Criteria API with Hibernate and JPA</u>: In addition to the HQL and JPQL language, there is the Criteria API, with which you can also extract information from the database using this API, however this Criteria API use more to create more complex dynamic queries with Java code, instead of strings with HQL or JPQL language. We will create several exercises to implement this type of consultation.

Integrating Everything.- Real World Web Application with Hibernate and JPA: We will create an application called Student Management System (SGA). Which will integrate everything seen in the course, from basic topics, to more advanced topics of Hibernate and JPA. This application will have a 3-layer architecture, and we will perfectly define the role of each technology in this practical application, which will serve as the basis for your own Java Web and Business applications using Hibernate and JPA.

Broadly speaking this is the general agenda of the Hibernate and JPA 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**

# HIBERNATE FRAMEWORK & JPA

Author: Ubaldo Acosta





#### **HIBERNATE 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
- Hibernate Framework & JPA
- Spring Framework
- JavaServer Faces
- Java EE (EJB, JPA and Web Services)

www.globalmentoring.com.mx

