

JAVA Framework

What is a framework?

Frameworks are large bodies (usually many classes) of prewritten code to which you add your own code to solve a problem in a specific domain. Perhaps you could say that the framework uses your code because it is usually the framework that is in control. You make use of a framework by calling its methods, inheritance, and supplying "callbacks", listeners, or other implementations of the Observer pattern.

Contrast to library. Although sometimes large libraries are referred to as frameworks, this is probably not the most common use of the term.

The difference between a framework and an ordinary programming library is that a framework employs an *inverted flow of control* between itself and its clients. When using a framework, one usually just implements a few callback functions or specializes a few classes, and then invokes a single method or procedure. At this point, the framework does the rest of the work for you, invoking any necessary client callbacks or methods at the appropriate time and place. For this reason, frameworks are often said to abide by **the Hollywood Principle** ("Don't call us, we'll call you.") or **the Greyhound Principle** ("Leave the driving to us.").

Most Common Java Frameworks are :-

- Struts
- Hibernate
- Spring

Struts 2.0

Introduction :

Struts 2.0 is one of the most widely used frameworks for web application development. Struts 2.0 is a implementation of MVC2 design pattern. Struts 2.0 provides features which makes creation of complex components in easy ways.

Objective :

- To understand fundamentals and components of Struts framework.
- To understand MVC and how it is applied in Struts framework.

Eligibility :

- Knowledge of Core Java, Servlet and JSP is essential to learn Struts 2.0.
- Knowledge of Struts 1.x will be advantageous.

Course Content :

- Struts 2 Framework Introduction
- Creating Application in Struts 2
- Creating Action in Struts 2
- Implementing interceptors in Struts 2
- OGNL and Struts 2
- Controlling execution flow using Struts 2 tags
- Designing User interface in Struts 2
- Performing validation in Struts 2
- Internationalization
- Results in Struts 2

Exit Profile : Java based Web Application Developer.

Hibernate 3.x

Hibernate is an open source object/relational mapping tool for Java. Hibernate lets you develop persistent classes following common Java idiom - including association, inheritance, polymorphism, composition and the Java collections framework. Hibernate not only takes care of the mapping from Java classes to database tables (and from Java data types to SQL data types), but also provides data query and retrieval facilities and can significantly reduce development time otherwise spent with manual data handling in SQL and JDBC.

Objective :

- Learning Fundamentals of Hibernate by using the Hibernate persistence engine.
- How to persist different types of objects using the Hibernate.
- How to use HQL (Hibernate Query Language) for querying objects stored in Hibernate.

Eligibility : Knowledge of Core Java and relational systems and SQL

- Course Content :
- Hibernate Fundamentals
- Layers and tiers concept
- Hibernate Architecture
- DAO and DTO
- Session Object
- ORM Mapper
- POJO classes
- Mapping Files
- Client Implementation
- My Eclipse Introduction
- Hibernate application Deployment
- Database configuration with My eclipse(Oracle)
- HQL (Hibernate Query Language)
- Native SQL
- Pagenation
- Projection
- Annotation
- Relationship Managements
- Thread Local
- Cache System
- Web Deployment with My eclipse

Exit Profile : Java based Application/Web Application Developer with Hibernate

Spring

Introduction :

The Spring Framework is preferred framework used for building enterprise applications. It is lightweight, modular and allow the developers to use the components selectively.

Objective :

- To learn how to use spring framework to create well designed business applications
- To use IOC to declare application components
- To use Dependency Injection to further control object relationships from outside the Java code base.
- To connect business objects to persistent using Spring DAO and ORM modules
- To understand AOP concept

Eligibility :

- Knowledge of Core Java, Servlet and JSP is essential to learn Spring.
- Professional having good experience in Java is expected audience.

Course Content :

- Introduction to Spring
- Steps to use Spring Framework in applications
- Understanding IOC and Dependency Injection
- Understanding the bean life-cycle – Auto wiring and bean scopes
- Annotation-based dependency injection
- Adding behavior to an application using aspects – AOP
- Creating and applying aspects
- Introducing data access with Spring – JDBC through spring
- Transactions in a Spring environment
- Getting started with Hibernate in a Spring environment
- Working with Spring MVC
- Spring MVC Form Handling
- Creating Views in Spring MVC

Exit Profile : Spring based web application developer/Business application developer

For further Information/Free Demo please SMS(Course)/Call at the under-given numbers :-

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