



# HEADSTAR TECHNOLOGIES

## **JAVA(ADVANCE)**

### **JAVA DATABASE CONNECTIVITY(JDBC)**

- Introduction, JDBC DriverTypes
- RelationalDatabase
- Structured QueryLanguage
- A Sample Program, MetaData
- Processing Database Data, Executingstatements
- Precompiled statements and storedprocedures
- Processing ResultSets, Dealing with Nulldata
- Updating, inserting, retrievingdata
- ControllingTransactions

### **SERVLETS & JSP WITH THE JSP STANDARDTAG LIBRARY(JSTL)**

#### **WEB APPLICATIONBASICS**

- How the Web works, ThinClients
- TCP/IP, HTTPoverview
- Brief HTML review, Overview of Java EE,servlets
- Web applications, ServletBasics

#### **SERVLETAPI**

- HTML Forms, HTTP:Request-response
- Headers, GET,POST
- How ServletsWork
- Servlet Lifecycle: init(), service(),destroy()
- Requests &responses
- Core Servlet API:GenericServlet
- ServletRequest&ServletResponse
- HTTP Servlets:HttpServletRequest
- HttpServletResponseJ

#### **AVA SERVERPAGES**

##### **BASICS ANDOVERVIEW**

- JSP architecture, tags andexpressions
- Fixed Template Data, Lifecycle of aJSP

##### **MODEL VIEW CONTROLLER(MVC)**

- Model 1/Model 2Architecture

##### **DATA SHARING AMONG SERVLETS &JSP**

- Request, application, session and pagescope
- <jsp:useBean>,<jsp:getProperty>
- <jsp:setProperty>
- <jsp:include>,<jsp:forward>

##### **MORE JSP CAPABILITIES ANDSESSION MANAGEMENT**

- HTTP as a stateless protocol, Hidden formfields
- Cookies: Overview, API, Usingcookies
- Session overview: Cookies and sessiontracking
- HttpSession, Putting data into a sessionobject

- Retrieving data from a sessionobject
- Additional JSPcapabilities
- Exception handling & errorpages
- Directives (page, include, others) Importdeclaration
- Multithreading considerations and datasafety
- Single Thread Modelinterface



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## **ADDITIONAL JSP CAPABILITIES**

- JSP Directives, Error Pages, JSP and Java
- Declarations, Scriptlet overview, Scriptlet syntax

## **OVERVIEW OF THE STRUTS 2 FRAMEWORK**

- Tiered, Model-View-Controller (MVC) Architecture
- The Struts 2 Framework
- Bundling the Struts 2 Libraries
- Creating a Basic Struts 2 Web Application

## **STRUTS CONFIGURATION FILES**

- An Overview of Struts Configuration Files
- The struts.xml Configuration File
- The package, action & resultElement
- The struts.properties Configuration File
- Examining the Hello Struts, Hello Struts Application

## **ACTIONS IN DETAIL**

- POJOs as Actions, Implementing theAction Interface
- Actions Accessing Resources
- The ActionSupport Class

## **RESULTS AND RESULT TYPES**

- The result Element, Standard Result Types
- Global Results and Exception Mappings
- Searching For Results, A Button Builder Application

## **INTERCEPTORS**

- An Overview of Interceptors
- Struts Predefined Interceptors
- A Simple & A Progress Meter Example
- Interceptor Details, Programmatic Validation of Data

## **OGNL AND THE VALUE STACK**

- An Overview of OGNL & Value Stack
- OGNL with Java Collections and Maps
- Collections and Maps, Additional OGNL Features

## **GENERIC TAGS**

- Generic Data & Control Tags
- Data & Control Tags Reference

## **FORM TAGS**

- Form Tags, Shared Form Tag Attributes
- Form Tags Reference

## **GETTING STARTED WITH HIBERNATE**

- What is Hibernate? Using, Configuring Hibernate
- Hibernate Sessions
- Writing Classes for Hibernate Applications
- Sample Class & Mapping File
- Creating & Saving a New Entity
- Locating & Updating an Existing Entity

- Deleting an Entity, Executing an SQL Query
- Programmatic Configuration

## **INTRODUCTION TO SPRING**

- MVC Introduction, IOC Introduction

## **PROJECT**

- Web Project (Industry Standard)