Yes-M Systems

Java Platform, Standard Edition (Java SE) , Java Platform, Enterprise Edition (Java EE) & Java Frameworks Training

From Yes-M Systems LLC

Length: Approx 9 weeks/85 hours

Audience: Students with experience in object-oriented programming

Student Location – To students from around the world

Delivery Method: Instructor-Led – Live online Training

Java Platform, Standard Edition (Java SE)

About this Course:

This 35+ hour/4 week course is designed to give students a solid knowledge in the architecture and concepts of Java EE Programming, Java web & business application development. Each concept will be discussed using interactive class notes along with relevant built-in examples/applications. This course is taught by experienced instructors with 10+ years of development and training experience.

This course will allow the students to understand various Java EE concepts including:

(i) Learning Java EE Architecture
(ii) Java web application development
(iii) Learning Web Core Technologies: Servlets and JSP
(iv) Java Data Base Connectivity (JDBC) Architecture
(v) Business Component Development
(vi) Learn how to use IDE for Java EE application development
(vii) Use Eclipse Indigo 3.7.1 for Java EE Developers
(viii) Exposure to lots and lots of working examples/applications
(ix) Learn how to build and deploy Java Enterprise Applications through hands-on work

AT COURSE COMPLETION

You would be able to develop data driven, distributed, multi tiered Java enterprise business application using web and business components.

Contact us for more details:

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Kudzu Reviews: http://www.kudzu.com/m/Yes-M-Systems-30363491/reviews/
Facebook: http://www.facebook.com/yesmsystems
Youtube: http://www.youtube.com/yesmsystems

Java Platform, Standard Edition (Java SE) Course Details

1. Basics of Java

1.1 Introduction to Java Platform Standard Edition (Java SE)
1.2 Java programming Basics
1.3 Introduction to Java Development Tools
1.4 Exploring your Java Class & Compiling and Interpreting Applications

2. Types, Values, Variable & Operators

2.1 The Kinds of Types & Values
2.1.1 Primitive Types and Values
2.1.2 Reference Types and Values
2.1.3 Parameterized Types
2.2 Type Variables
2.2.1 Variables of Primitive Type
2.2.2 Variables of Reference Type
2.2.3 Practical (Hands-on Working Examples)
2.3 Kinds of Variables
2.3.1 Practical (Hands-on Working Examples)
2.4 Data Type Casting
2.4.1 Practical (Hands-on Working Examples)
2.5 Java Arrays, Multi-Dimensional Arrays
2.5.1 Practical (Hands-on Working Examples)
2.6 Using Operators
2.6.1 Practical (Hands-on Working Examples)

3. Flow Control

3.1 Conditional Statements
3.2 Looping Statements
3.3 Practical (Hands-on Working Examples)
3.4 Branching Statements Practical (Hands-on Working Examples)

4. Classes & Methods

4.1 Declaring Classes
4.1.1 Generic Classes and Type Parameters
4.1.2 Practical (Hands-on Working Examples)
4.2 Defining Methods
4.2.1 Passing Parameters by Values
4.2.2 Generic Methods
4.2.3 Use Static methods, JavaBeans Naming & & Var-Args
4.2.4 Practical (Hands-on Working Examples)
4.3 Develop Constructors
4.3.1 Practical (Hands-on Working Examples)

5. Object Oriented Programming (OOP) Concepts

5.1 Describe Encapsulation, Use Polymorphism & Inheritance
5.1.1 Practical (Hands-on Working Examples)
5.2 Method Overriding, Overloading & Constructor Overloading
5.2.1 Practical (Hands-on Examples)

5.3 Develop Interfaces, Abstract Classes & Nested Classes
5.3.1 Practical (Hands-on Working Examples)

6. Packages

6.1 Defining and Importing packages
6.2 Access and non-Access Specifiers
6.2.1 Practical (Hands-on Working Examples)
6.3 Explore java.lang package – Using String & Wrapper classes
6.3.1 Practical (Hands-on Working Examples)

7. Exception Handling

7.1 About Java Exception Handling & Exception Hierarchy
7.2 Using try-catch Blocks
7.2.1 Practical (Hands-on Working Examples)
7.3 "throws" keyword, throwing(throw) an Exception & "finally" Statements
7.3.1 Practical (Hands-on Working Examples)

8. Threads

8.1 Introduction to Java Multithread Programming
8.2 Creating a Thread – Implementing Runnable & Extending Thread
8.2.1 Practical (Hands-on Working Examples)
8.3 Creating Multiple Threads and Joining Threads
8.4 Java – Thread Synchronization
8.4.1 Practical (Hands-on Working Examples)
8.5 Interthread Communication and Java Thread Deadlock
8.5.1 Practical (Hands-on Working Examples)

9. Collection Framework

9.1 Introduction to Collection classes & Interfaces
9.2 Core Collections Interfaces: List, Set & Map
9.3 Collection Classes – Lists, Sets, Maps & Using an Iterator
9.3.1 Practical (Hands-on Working Examples)
9.4 Storing User-defined classes in Collections
9.5 Legacy Classes & Interfaces: Enumeration, Vector & Hashtable
9.5.1 Practical (Hands-on Working Examples)
9.6 Autoboxing and Unboxing
9.6.1 Practical (Hands-on Working Examples)

10. I/O Streams

10.1 Overview – Stream I/O in Standard I/O (java.io Package)
10.2 Byte Based I/O & Byte Streams
10.2.1 Byte Arrays
10.2.2 File I /O Byte Streams
10.2.3 Buffered I/O Byte Streams
10.3 Formatted Data streams – Java DataInput / DataOutput Streams
10.3.1 Practical (Hands-on Working Examples)
10.4 Character Based I/O & Character Streams
10.4.1 Char Arrays
10.4.2 File I /O Character Streams
10.4.3 Buffered I/O Character Streams
10.4.4 Practical (Hands-on Working Examples)

10.5 Object Serialization using the java.io package
10.5.1 Practical (Hands-on Working Examples)
10.6 Using PrintStream & PrintWriter

11. Swing
11.1 Describe the key features of Swing
11.2 Add components to a JFrame using the ContentPane
11.3 Using WindowBuilder – Java GUI designer
11.4 Write Swing Applications using Swing components
11.5 Event Handling
11.6 Creating Data Driven Swing Based GUI Application

Java Platform, Enterprise Edition (Java EE)

Course Summary

This 25+ hour/2 week course is designed to give students a solid knowledge in the architecture and concepts of Java EE Programming, Java web & business application development. Each concept will be discussed using interactive class notes along with relevant built-in examples/applications. This course is taught by experienced instructors with 10+ years of development and training experience.

This course will allow the students to understand various Java EE concepts including:

(i) Learning Java EE Architecture
(ii) Java web application development
(iii) Learning Web Core Technologies: Servlets and JSP
(iv) Java Data Base Connectivity (JDBC) Architecture
(v) Business Component Development
(vi) Learn how to use IDE for Java EE application development
(vii) Use Eclipse Indigo 3.7.1 for Java EE Developers
(viii) Exposure to lots and lots of working examples/applications
(ix) Learn how to build and deploy Java Enterprise Applications through hands-on work

AT COURSE COMPLETION

You would be able to develop data driven, distributed, multi tiered Java enterprise business application using web and business components.

Java Platform, Enterprise Edition (Java EE) Course Details

1. Introduction to Java EE Platform Architecture & APIs
1.1 Java EE Platform Overview
1.2 Java EE Platform – Distributed Multi Tiered Applications
1.3 Java EE – Web & Business Components
1.4 Java EE Containers – services & types
1.5 Java EE Application Assembly & Deployment – Packaging Applications, Java EE modules
1.6 Getting Started with Web Applications
1.7 Model View Controller (MVC)2 Architecture & Packaging EJB Module

2. Java EE Web Tier

2.1 Getting Started with Web Applications
2.2 Configuring Web Applications – Web application deployment descriptor
2.3 Web Application Life Cycle & Development
2.4 Packaging and deploying web applications, Ant build tool

3. Web Component Development with Servlet & JSP

3.1 SERVLETS
3.1.1 Servlet Overview
3.1.1.1 Life cycle of Servlet & Servlet Container
3.1.1.2 Handling Client HTTP Request & Server HTTP Response
3.1.1.3 Practical (Hands-on Working Examples)
3.1.1.4 Exploring web.xml
3.1.1.5 Initializing a Servlet
3.1.2 Using Scope Objects
3.1.3 Accessing Web Context – ServletContext initialization Parameters:
3.1.4 ServletContext Attributes (Context binder)
3.1.5 Practical (Hands-on Working Examples)
3.1.6 Request Dispatcher (Forward,Include) & Redirecting (sendRedirect)
3.1.6.1 Transferring Control to AnotherWeb Component
3.1.6.2 Including Other Resources in the Response
3.1.6.3 Redirecting (sendRedirect) to another Web Resource
3.1.7 Session Management, Request Dispatcher & Redirecting
3.1.7.1 Practical (Hands-on Working Examples)
3.1.8 Configuring Web Applications using Annotations

3.2 JSP
3.2.1 Introduction to JSP
3.2.2 JSP Architecture, API & life cycle
3.2.3 JSP Scripting Elements
3.2.3.1 Practical (Hands-on Examples)
3.2.4 JSP Directives, JSP Expression Language (EL)
3.2.5 JSP Implicit Objects & Standard JSP Tags
3.2.5.1 Practical (Hands-on Working Examples)
3.2.6 JSTL

4. JDBC

4.1 JDBC Overview & Architecture
4.2 Step By Step Usage of JDBC API
4.3 Connecting to MySQL/Oracle 10g XE Database in Java
4.3.1 Practical (Hands-on Working Examples)
4.4 Prepared Statement & JDBC Transactions
4.4.1 Practical (Hands-on Working Examples)
4.5 Developing Web Applications with Oracle 10g XE /MySQL Database by implementing Java Beans, DAO's & MVC2 Architecture

5. Business Component Development with EJB Technology

5.1 Enterprise Java Beans (EJB 3.0)
5.1.1 EJB Technology overview
5.1.2 Introducing EJB 3.0
5.1.3 EJB Container, Types of Beans

5.1.4 Introduction to Java Naming and Directory Services (JNDI), Defining Client Access with Interfaces
5.1.5 Creating a simple EJB3 Module using Session Beans
5.1.6 Creating the Enterprise Application Project
5.1.7 EJB 3.0 Persistence Programming Model – Introduction to Java Persistence API
5.1.8 Object-Relational Mapping , JPA Annotations, Entity Classes, Managing Entities,
5.1.9 Accessing Entities in the Persistence Context, The EntityManager API, The Persistence Context,
5.1.10 Entity Life Cycle , Creating Queries
5.1.11 Java Persistence API Reference
5.1.12 Designing a EJB application using Entity Bean & Session Bean
5.1.13 Developing EJB3 Module using Stateless, Stateful Session Beans & Entity Beans. And creating an Enterprise Application Project using Eclipse Indigo 3.7.1 + JBOSS 7.1.0 + MySQL 5.5

6. Developing Web Services using Java Technology

6.1 Introduction to Web Services
6.2 Building Web Services with JAX-WS About Session Beans
6.3 Building RESTful Web Services with JAX-RS

Java Frameworks

Course Summary

This 25+ hour/3 week course is designed to give students a solid knowledge in the architecture and concepts of Java frameworks such as Struts 2, Hibernate and Spring for developing enterprise grade Java business applications. Each concept will be discussed using interactive class notes along with relevant built-in examples/applications. This course is taught by experienced instructors with 10+ years of development and training experience.

This course will allow the students to understand various Java Frameworks including:

(i) Struts 2 framework, Hibernate & Spring for building Java EE applications
(ii) Building Data Driven applications with Struts2, Hibernate & Spring
(iii) Struts 2Integaration with Hibernate
(iv) Spring Integration with Hibernate
(v) Learn how to use IDE for Java EE application development
(vi) Use Eclipse Indigo 3.7.1 for Java EE Developers
(vii) Exposure to lots and lots of working examples/applications
(viii) Learn how to build and deploy Java Enterprise Applications through hands-on work

AT COURSE COMPLETION

You would be able to develop data driven, distributed, multi tiered Java enterprise business application using using Object Component Technologies and popular framework technologies.

Java Frameworks Course Details

Struts 2 Training

1. INTRODUCTION TO STRUTS 2 FRAMEWORK

1.1 Struts 2 Overview
1.2 Why use Struts framework for web applications
1.3 Struts 2 declarative architecture and Implementation of MVC
1.4 Processing Request
1.5 Model – Action
1.6 View – Result
1.7 Interceptors
1.8 Exception Handling
1.9 The ValueStack and ONGL

2. WORKING WITH STRUTS 2 APPLICATION

2.1 Struts 2 Configurations
2.2 Introducing Struts 2 Actions, Struts 2 Results
2.3 Packaging your actions
2.4 Implementing actions
2.5 Transferring data onto objects

3. OGNL

3.1 What is OGNL?
3.2 OGNL in Struts and Where OGNL is Used
3.3 The common tasks in a web application
3.4 Data transfer and type conversion
3.5 Built-in type converters
3.6 Customizing type conversion

4. ADDING WORKFLOW WITH INTERCEPTORS

4.1 Why intercept requests?
4.2 Interceptors in action
4.3 Surveying the built-in Struts 2 interceptors
4.4 Declaring interceptors
4.5 Building your own interceptor

5. STRUTS 2 VALIDATION FRAMEWORK

5.1 Getting familiar with the validation framework
5.2 Wiring your actions for validation
5.3 Validation framework advanced topics

6. STRUST 2 TAGS

6.1 An overview of Struts tags
6.2 Types of Tags
6.3 Data Tags
6.4 Control tags
6.5 Why we need UI component tags

7. STRUST 2 INTEGRATION & PERSISTENCE LAYER
7.1 Overview of JDBC
7.2 Connecting to the DataBase
7.3 Submitting the SQL statements
7.4 Retrieving and processing data
7.5 DB_Action Class
7.6 Data Access Object
7.7 Integrating Struts2 with Hibernate
7.8 Internationalization
7.9 Java i18n and Struts2 framework
7.10 How to use Struts2 i18n
7.11 The default local determination

Hibernate Training

1. Hibernate Architecture Overview
1.1 Introduction to Hibernate
1.2 ORM Overview
1.3 Hibernate Architecture and API
1.4 Hibernate Environment/Setup
1.5 Hibernate Configuration
1.5.1 hibernate.cfg.xml file
1.5.3 SessionFactory, Configuration class, Session Interface
1.5.4 Mapping Files

2. Hibernate Annotations
2.1 Hibernate with Annotations

3. Querying
3.1 HQL – Hibernate Query Language Overview
3.2 HQL Basics, HQL Expressions, HQL Functions
3.3 Using queries: HQL, criteria API, native (SQL)

4. Association Mappings
4.1. Unidirectional associations with join tables
4.1.1. One-to-many
4.1.2 Many-to-one
4.1.3 One-to-one
4.1.4. Many-to-many
4.2 Bidirectional associations with join tables
4.2.1 one-to-many / many-to-one
4.2.2. one to one
4.2.3. Many-to-many
4.3 Collection Mapping

Spring Training

1. Spring Framework Introduction
1.1 What is Spring & Why use Spring?
1.2 Concepts of Spring & its Architecture

1.3 Introduction to Spring modules
1.4 Spring Environment Setup

2. Getting Started with Spring

2.1 Spring Bean Definition
2.2 Lifecycle of Bean
2.3 Bean Scopes
2.4 Inner Bean, Collection Bean, Bean Reference
2.5 Bean Definition Inheritance
2.6 Dependency Injection (DI)& Inversion of Control (IoC)

3. Spring IoC – Dependencies Injection

3.1 Dependency Injection in Spring
3.1.1 Spring Setter Injection
3.1.2 Spring Constructor Injection
3.2 Spring Auto Wiring
3.2.1 Autowiring By Type
3.2.2 Autowiring By Name
3.2.3 Autowiring By Constructor
3.2.4 Autowiring By AutoDetect

4. Spring AOP

4.1 Aspect Oriented Programming Overview
4.2 The Real Problem and Solutions through AOP
4.3 Spring AOP Terminology
4.4 AOP Advice Types
4.4.1 Creating Advices in Spring

5. Spring Annotation Tutorial

6. Spring 3 Web MVC

6.1 Introduction to Spring 3.0 MVC framework & Configuration
6.2 Spring Annotation Based Controllers
6.3 Creating an Application in Spring 3.0 MVC
6.4 Handling Forms in Spring 3.0 MVC
6.5 Spring Validation Framework
6.6 Spring Interceptors

7. Accessing Relational Data using JDBC with Spring – Spring JdbcTemplate

7.1 Spring JDBC Complete Introduction & Advantages
7.2 Centralized Classes of Spring JDBC
7.3 Using Spring JDBC Template
7.4 Spring JdbcTemplate Select Query
7.5 About execute() Method Of Spring JdbcTemplate Class
7.6 About update() Method Of Spring JdbcTemplate Class
7.7 Spring MVC JDBC Example

8. Spring with ORM

8.1 Integrating Spring with Hibernate

Disclaimer: Yes-M Systems and/or their instructors reserve the right to make any changes to the syllabus as deemed necessary to best fulfil the course objectives. Students registered for this course will be made aware of any changes in a timely fashion using reasonable means.

About Yes-M Systems:

a. Established in 2005 (Atlanta, GA, USA), 10th year in business.
b. A+ accreditation from US Better Business Bureau (http://www.bbb.org/atlanta/business-reviews/internet-consultants/yes-m-systems-in-duluth-ga-27431372)
c. Received the “Best of 2012” and “Best of 2013” awards from US-based Kudzu (http://www.kudzu.com/m/Yes-M-Systems-30363491/reviews/)
d. Trained close to 3000+ students from all over the world.
e. Experienced, passionate and committed trainers
f. IT Training in various technologies including Java, Dot Net, SAP, Oracle, QA, BA etc (See Courses We offer section for more information)
g. Professional guidance/help with resumes and interview preparations.
h. Recruiter help with marketing/jobs
i. Certification at the end of the training.

Courses we offer:

A. QA and BA courses:

- QA [Quality Assurance or QA Testing]
- BA [Business Analysis or Business Analyst]
- QA and BA as a single course (Integrated QA+BA) at a reduced fee.
- Advanced/specialization courses:
  a. 60-hour Selenium course with Core Java
  b. ETL Testing
  c. Advanced Mobile Testing
  d. Advanced QTP
  e. Any combination of a, b, c, d.

- Certification QA
  a. QTP
  b. ISTQB
  c. Quality Center

- Healthcare and Finance specialization
  a. Healthcare as a Domain Class
  b. Healthcare BA [Business Analyst with specialization in Healthcare]
  c. Healthcare QA [Business Analyst with specialization in Healthcare]
  d. Healthcare QA [Quality Assurance or QA Testing]
  e. Business analyst with Finance specialization.
  f. Quality Assurance with Finance specialization

B. Java courses:
a. Core Java
b. Advanced Java
C. Combination of Core Java and Advanced Java

C. Healthcare and Finance specialization
a. Healthcare as a Domain Class
b. Healthcare BA [Business Analyst with specialization in Healthcare]
c. Healthcare QA [Business Analyst with specialization in Healthcare]
d Healthcare QA [Quality Assurance or QA Testing]
e. Business analyst with Finance specialization.
f. Quality Assurance with Finance specialization

D. Microsoft Courses:
a. Dot Net
b. Microsoft Business Intelligence [MS BI]
c. Sharepoint
d. MS SQL Server

E. SAP Courses:
a. SAP FICO
b. SAP MM
c. SAP HR
d. SAP BO
e. SAP BI
f. SAP HANA

F. Oracle Courses:
a. Oracle Financial
b. Oracle DBA
c. PL/SQL

G. Other Courses:
a. Hadoop
b. Hadoop with Java
c. Salesforce
d. Project Management (PMP)
e. Maximo
f. Tabeau
g. Informatica
h. Cognos