



Baluja's Institute of Technology & Management

An ISO 9001:2000 Certified Institute

www.balujalabs.com

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Training Details For

Sun Certified Java Professional

Core Java

(SCJP)

DURATION: 1.5 MONTHS

**WITH PROJECT
AND**

Fees: ` 4000/-

J2EE

(JSP, Servlets, Struts, Hibernate, Ajax, XML, EJB)

DURATION: 3 MONTHS

WITH LIVE PROJECT

Fees: ` 12,500/-

- JSP+Servlets (With Project)
- Struts+EJB (With Project)

Fees: ` 6500/-

Fees: ` 6500/-

Cloud Computing

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1. INTRODUCTION

Purpose

This document outlines the details of the training / Internship provided by BALUJA LABS to the ambitious candidates who are willing to fill the gap between academic study and the actual understanding.

Scope

This document covers the company profile, our ideology, focus and details course contents for the training in the field of Java used for developing Application software & Dynamic Online Web Project/ WebSites.

2. BALUJA LABS

2.1 Overview

Baluja Labs is a leading edge of Comprehensive IT/ITES Industry that provides customized services & solution to different industry verticals. The company has initiated its operation in Janakpuri in 2004 by a very Dynamic Team of Software Consultants, who are having rich experience of IT-Industry.

Since inception BALUJA LABS is focusing to achieve the business goals of their customers & partners through quality & timely delivered services & solutions our employee pool is empowered by process skilled, domain, experienced, professionals, who all are immensely Competitive in their domain area.

BALUJA LABS provides best possible well knitted services & process based solutions that can help out the business operation of our clients as competently and economical so that they can get upper hand in today's cut throat Competition.

Our business philosophy is to "Create Value through Competitive Business Solution". The Company endeavors to provide innovative business solution to different industry verticals at a very competitive rates through a rich Combination of processes, technology & Skilled Manpower.

Market we serve

We are delivering IT/ITES Product Process Project Based Services & Solutions to all emergent markets that include.

- Software Development.
- Website Development.
- LINK BUILDING.
- Search Engine Optimization.
- Internet Marketing.
- Software Testing

For more details of our clients & projects you can visit at www.balujalabs.com

2.2 Software Training @ BALUJA LABS

2.2.1 Ideology

Software Training division of BALUJA LABS was started with an aim to bridge the gap between the academics & industry. It empower & fresh Graduates/Post Graduates (BE.BTECH, MTECH, BCA, BSC, MCA, PGDCA, MCA) students with the Latest Technology understanding so that they can enter into the industry with more confidence.

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Many students then feel that they can not perform well because they are not from premier institutes like IIT/NITS. They feel their selves less confident & more confused by the time they pass pre final year. Our Courses are specially designed to make those candidates that they are able to close up will all kind of technologies.

In the training professionals from industry shares their key skills with there students and because of the properly designed Course Content, student understand the basic concept knowledge with more practical understanding.

2.2.2 Methodology

Baluja Labs gives their trainees an office like environment where they learn through Hard Core Teaching Sessions, Presentations, Self Learning, Discussing Case Studies, Research work and prototype implementation. Students run the prototypes, do testing and verification with the help of Guide which gives their a read-time product like understanding.

2.2.3 Domain

Trainees get the training in following area:-

1. Java
2. J2EE
3. Software Development Life Cycle (SDLC)
4. Project – Implementation\ Research\ Case study\ Prototyping.
5. S Q T (Software Quality Testing)

2.2.4 Career Growth

After getting the training the Candidate can perform much better and faster than the other fresh Candidates. They will understand the basic requirement is a much better way. As a result they can grow faster in industry.

2.2.5 Placement Assistance

Baluja Labs may provide the placement assistance to the candidates after the successful completion of training. They will specially get training for the interview for FREE without any extra charges. Baluja Labs is taking responsibility of best training so that candidates can crack the interview & grow in an effective manner.

3 Course Content

3.1 Module Division

Baluja Labs offers a customized solution as per the need of the trainees. We believe that trainees can be from different backgrounds, Colleges, knowledge level, Interest level, domain interests and skill level. We take a interview to judge the level, interest area, time available and based upon that we offer the Course Modules. Based upon that the batches are formed and trainee will get the guidance in a normalized fashion.

Module 1

Duration: 1.5 Month

Fees: 4000/-

1.0 Basics of Java Programming

2.0 Declarations and Access Controls

- Classes
- Methods
- Constructors
- Packages
- Inheritance
- Interfaces
- Member accessibility Modifiers
- Static, Final, Abstracts, Synchronized, transient, Volatile, Native, Member Modifiers

3.0 Applet

- Life Cycle
- Applets and Threads
- Parameters
- Using Images & Sound in Threads
- JAR Files
- Security

4.0 Exception Handling

- Types of Exception
- Try, Catch and Finally Block
- Throws, throws

5.0 Inner Classes

- Top- Level Nested Classes
- Non-Static Inner Classes
- Local Classes
- Anonymous Classes

6.0 Threads

- Multithreading
- Runnable Interface
- Thread Class
- Synchronization
- Thread Transition

7.0 Overview of Java.lang package

- Object Class
- Wrapper Class
- Math Class
- String Class
- String Buffer Class

8.0 Garbage Collection

- Garbage Collection
- Initializer

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9.0 AWT Components

- Component – Canvas, Checkbox, Label, Scrollbar, TextField
- Frame
- Container
- Panel
- Window
- GUI Control
- Dialog
- Menu

10.0 Layout Managers

- Grid Layout
- Flow Layout
- Border Layout
- GridLayout
- BorderLayout and Boxes
- BorderLayout spacing
- BorderLayout alignment
- GridBagLayout
- Example: GridBagLayout
- Null Layout
- Alternate Layout Managers

11.0 Event Handling

- ActionEvent
- AdjustmentEvent
- ComponentEvent
- ContainerEvent
- FocusEvent
- InputEvent
- ItemEvent
- KeyEvent
- MouseEvent
- PaintEvent
- TextEvent
- WindowEvent

12.0 Java Graphics API

- Draw lines, rectangles and any other geometric shape.
- Fill those shapes with solid colors or gradients and textures.
- Draw text with options for fine control over the font and rendering process.
- Draw images, optionally applying filtering operations.
- Overview of the Java 2D Graphics API
- Working with Geometry
- Working with Text APIs
- Working with Images
- Printing
- Advanced topics in Java 2D

13.0 Advance AWT

- The Rendering Pipeline
- Shapes

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- Areas
- Strokes
- Paint
- Coordinate Transformations
- Clipping
- Transparency and Composition
- Rendering Hints
- Readers and Writers for Images
- Image Manipulation
- Printing
- The Clipboard
- Drag and Drop

14.0 File Handling

- File Class
- Byte Streams
- Character Streams
- Random Access Files
- Serialization

15.0 Networking

- Connecting to a Server
- URL Collections
- TCP/IP

16.0 Swing (Swing Components)

- Buttons, Check Boxes, Radio Buttons, Button Group Component, Color Choosers
- Combo Boxes, Dialogs, Editor Panes and Text Panes, File Choosers, Formatted Text Fields
- Labels, Lists, Menus, Password Fields, Progress Bars, Root Panes, Scroll Panes, Separators
- Sliders, Spinners, Split Panes, Tabbed Panes, Tables, Text Areas, Tool Bars, Trees
- HTML in Swing Components, Models, Icons, Borders
- Questions and Exercises: Using Swing Components

17.0 Collections

- Framework
- Sets
- Lists
- Maps

18.0 JDBC with (My SQL, Oracle and MS Access)

- Project
- The Design of JDBC
- The Structured Query Language
- JDBC Installation
- Basic JDBC Programming Concepts
- Query Execution
- Scrollable and Updatable Result Sets
- Metadata
- Row Sets
- Transactions
- Advanced Connection Management

19.0 Project Training

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Module 2

Duration: 2 Months

Fees: Rs. 9500/-

1.0 Eclipse

- Eclipse Introduction
- Project definition and configurations
- Execution and debugging
- Advance features

2.0 JDBC

- JDBC Introduction
- JDBC Architecture
- Java Database Connectivity Steps
- Test JDBC Driver Installation & Connection
- Types of JDBC Drivers
- Inserting Data into SQL Tables
- Retrieving Data from SQL Tables
- Update SQL Tables

3.0. JSP

- Introduction to JSP
- Introducing Java Server Pages Technology
- JSP Architecture
- Reading the Request Information
- Retrieving the data posted to a JSP file from HTML file
- Introduction to the JSP tags
- Accessing database from JSP
- Working with JSP Sessions
- JSP Cookies Example
- Disabling Session in JSP
- JSP and JavaBeans
- Custom Tag Library
- File uploading
- mailing process
- validations

4.0. Servlet

- History of Web Applications
- Support for Servlets
- HTTP Servlet Basics
- The Servlet Lifecycle
- Retrieving Information
- Sending HTML Information
- Sending Multimedia Content
- Session Tracking
- Security
- Database Connectivity
- Applet-Servlet Communication
- What's New in the Servlet API
- Advance Servlet Features (Forward ,Include, Redirect)

5.0. Hibernate

- Introduction to Hibernate
- Hibernate Configuration

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- Entity definitions and O/R Mapping
- Working with Persistent Objects
- Hibernate Queries
- Hibernate Caching
- Advance Concepts

6.0 Struts

- MVC Architecture
- Struts Framework
- Struts Controller Components
- Struts View Components
- Struts Model Components
- Struts Tag Libraries
- Exception Handling in Struts
- Using Commons Validate with Struts
- Struts example

7.0. EJB

- Introduction to Distributed Component & Containers
- EJB Fundamentals
- Session Bean Internals
- Entity Bean Internals
- Transaction Management
- Bean Relationships
- EJB QL
- EJB best practices

8.0. Spring Framework

- Dependency Injection and Inversion of control
- Bean Managed container and its configurations
- Bean definitions and their usage
- Hibernate Integration
- Struts Integration

9.0 J2EE Connector Architecture

- About Resource Adapters
- Resource Adapter Contracts
- Administering Resource Adapters
- The Black Box Resource Adapters
- Transaction Levels
- Properties
- Configuring JDBC Drivers
- Resource Adapter Tutorial
- Setting Up
- Deploying the Resource Adapter
- Testing the Resource Adapter
- Common Client Interface

10.0 AJAX

- Introduction
- Create an XMLHttpRequest Object
- Send a Request To a Server
- Server Response
- The onreadystatechange Event
- AJAX Examples

11.0 Java and XML

- Generating an XML Document
- Parsing XML
- Quick Reference Guide
- Create well-formed and valid XML documents
- Use XML Namespaces in an XML document
- Create and use an XML Schema document
- Validate XML documents by using standard XML techniques
- Use XPath expressions and functions
- Transform XML documents by using stylesheets and XPath expressions
- List the XML features in the database
- Explain the architecture of Oracle XML DB
- Use the XQuery language

12.0 Cloud Computing

- Cloud Architecture
- Cloud as Service

MODULE 3

Duration: 1 Month

Fees: Rs. 3000/-

Live Project Training

1 Month

In Live Project training we give the training on Live Project of Industry Relevance.

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