

## Placement-Cum-Training Program on Java Enterprise Programming

### Course Curriculum

<u>Life Skills</u>		
Topic	# of hrs	Details
<b>Life Skills - Induction</b>		
Induction	2	Icebreaking, Overview of Life Skills modules, Code of conduct, Professional grooming, Discussion on expectations
<b>Language &amp; Communication</b>		
Communication Skills	6	Communication, Reading Comprehension, Listening, Non-Verbal Communication
Oral Communication	6	Oral communication: Introduction to Communication with diagnostics, Telephonic Conversation, Phonetics: Sounds, Phonetics: Stress & Intonation - Grammar & Exercises.
Effective Communication	6	Business Grammar, Pronunciation-1, Pronunciation-2, Group Discussion-1, Group Discussion-2 (Telephonic Conversation)
Written Communication	6	Types: Business & Technical Writing, Introduction to writing, Characteristics of Technical Writing, Mechanics & Diagnostics, Grammar, Report Writing, Letter/Memo/Email Writing.
Presentation Skills	6	Handling Fear & Nervousness, Content, Voice, Body Language, Mannerisms, Preparation and Delivery, Individual Mock up Presentation
<b>Aptitude</b>		
Logical Reasoning	6	Logical Reasoning
Verbal Reasoning	6	Verbal Reasoning
Numerical Reasoning	6	Numerical Reasoning
Abstract Reasoning	6	Abstract Reasoning
<b>Personality Development</b>		
Self Motivation, Positive Attitude & Confidence	6	Self Motivation, Positive Attitude at Work, Building a Positive Attitude, Exuding Confidence.
Professional Grooming	6	Ettiquette Basics, Work place ettiquette, Business Communication, Personal Grooming, Body Language, Dining Ettiquette, Global Culture
Team Work	6	Self concept, Perception, People Management, Introduction to Group dynamics & Team Work, Conflict Management and Interpersonal Communication
Job Readiness	6	Expectations Management, Taking & Giving Feedback, Dealing with difficult Coworkers & Colleagues
<b>General Preparation</b>		
Resume Preparation	4	Resume Preparation
Organizational Behaviour	4	Goal setting, Individual goals, Organizational goals
Time Management	4	Planning, Scheduling
Mock Interviews	4	Interview Skills, Stages in a interview, Mock Interviews
Tech. Interviews	4	Technical Interview Preparation
	<b>100</b>	

<b>Software Foundation</b>		
<b>Topic</b>	<b># of hrs</b>	<b>Details</b>
<b>Foundation - OS</b>		
OS Overview	2	OS Concepts & Terminology: Principal operations of an operating system.
Unix Essentials	6	Familiarization of Unix Architecture, Unix Commands, VI-Editor
<b>Foundation - SDLC</b>		
SDLC	6	Principles, SDLC phases - Requirements analysis, Planning, Design (Flowcharts), Development, Implementation, Testing, documentation, Deployment, Integration, Maintenance, Configuration Management, Development Process, Tools, Quality, Helpdesk; Various Roles
Roles & Responsibilities	4	Programmer/Engineer, Analyst, QA Engineer, Support Technician, Project Manager, Architect, Business Requirements Analyst, Technical Writer, Application Integration Specialist, User Interface Analyst etc.,
Principles of Programming	4	Principles of programming and apply these concepts in programming & Best Practices.
Software Development Methodology	6	Principles, Different Types of Models, Techniques, methodologies used during Software Development.
OOAD & UML	6	Concepts, UseCases, Actors, Objects, Classes, Activities, Use Case Diagrams, Sequence Diagrams, Class Diagrams, Associations, Normalization, Components, Modelling Techniques, Deployment, Package, Profiles
<b>Foundation - Software Landscape</b>		
Software Architectures	6	Client-server, 3-tier, J2EE, Mobile, Web, Cloud, Mainframe, Real-Time Apps
Programming Languages	6	C, C++, Java, C#, .Net, Java Script, Perl, Ruby, PHP
Building Web Applications	6	HTML, CSS, Java Script, Web/Application Servers Concepts
DataBase Management Systems	6	DB concepts, E-R diagrams, Schema design, SQL, Oracle, MySQL
Introduction to Networks	6	LAN, WAN, DNS, TCP/IP, Routers, HTTP, DSL, ATM, 802.11g, 3G, 4G
Data Structures and Algorithms	6	Containers (List, Queue, Stack), Trees, Graphs, Sorting, Searching, Hash Tables, Dynamic Programming, Greedy Algorithms
Mobile Applications	6	iphone, ipad, Blackberry, Android, Windows Mobile, Palm
Coding Standards	6	Naming, Coding, Structuring your Program, Documentation, Comments etc.,
Software Standards	6	IEEE, Six-Sigma, ISO, SEI-CMM, Commonly used Templates ( Communication, Coding, Schedule etc.,)
Version Controlling	6	VSS, CVS, Repository, Check-in, Check-outs, Versions etc.,
Types of Software Projects	6	Fixed Price, Time & Material, Services/Product/Support
	<b>100</b>	

<b>Tech. Skills - J2EE</b>		
<b>Topics</b>	<b># of hrs</b>	<b>Details</b>
Core Java, JDK 1.5	58	Java Introduction, Objects and Classes, Inheritance, Polymorphism, Abstract Classes, Interfaces, Packages, Exception handling, Multithreading, I/O Library, Collection API - Util Library, JDK 1.5 Features, Networking
Oracle 9i	8	Data access in Oracle and querying, Advanced querying, Data types, Transactions, Indexes, Views.
HTML & JavaScript	6	HTML & JavaScript
J2EE	60	J2EE Architecture overview ODBC: Introduction to ODBC/JDBC & types of Drivers, DriverManager, Connection, Statement, PreparedStatement, ResultSet, Scrollable, Updatable ResultSets, BatchUpdates, Callable Statement and Overview of RowSets XML: Introduction to XML ,DTD, Schemas, Xpath, XSL, XSLT Servlets: Introduction to Servlets,Life cycle, ServletAPI, RequestDispatcher, Redirection,ServletChaining, Session Handling(Cookies, Session Object and URL Rewriting), Filters and Listeners JSP Lifecycle, Elements of JSP, Implicit Objects and Standard Tags, JavaBeans with JSP EJB: Introduction, EJB Architecture, Types of EJBs, Lifecycle of Session Beans, Lifecycle of MDB, Dependency Injections, EJB Annotations, Interceptors and Timer Service JPA: Introduction JMS: Introduction, Using JMS in EJB with MDB, JNDI and other technologies
Struts Framework	8	Introduction, MVC, Action Mappings, ActionServlet,Action, Global Forwards, Forms and Struts Tag Libraries, Validation Framework
Spring Framework	6	Introduction, Spring Architecture Fundamentals, Applying IOC and Dependency Injection, Spring DAO
Hibernate Framework	6	Introduction,Architecture, Configuring Hibernate, Querying - insert,update,select etc, Overview of HQL
Design Patterns	8	<b>Creational</b> - Factory Methods and SingleTon <b>Structural</b> - Adaptor and Decorator <b>Behavioural</b> - Iterator and Command <b>J2EE</b> - FrontControllor and DAO
Web Services (JAX-WS API)	16	Introduction & Overview, SOAP, WSDL, JAX-WS, Java to WSDL Development, WSDL to Java Development, Developing client to the Web Services, Web Service best practices
Application Development and Maintenance (1 Case Study)	24	Coding & Unit Testing – Integration Testing –System Testing – Acceptance Testing - Deployment, System Landscape(Test Server, Development Server, Production Server) GoLive, Change Request Life Cycle
	<b>200</b>	