Java Front End – Training

Goals:

Training aims to bridge the gap between college education and requirements for a career in information technology by enhancing the skill levels (Technical & Behavioral)

Pre - Requisites:

- Candidate should have a general background in Java application development.
- Basic understanding of Web and Internet development
- Basic knowledge of Internet programing languages like HTML, CSS & JavaScript.
- Basics knowledge of programming Language like C, C++, Java, Visual Basic.

Trainers:

#	Trainer	Technology	Email	Alias	Phone #
1	Mert Basdogan	Node.js, NoSQL, Non-Coding Aspects, Interviews	mert.basdogan@antra.com	MB	650-231-2182
2	Abhilash Gaddam	Angular	abhilash.gaddam@antra.com	AG	703-260-7751
3	Madhu Sharma	HTML, CSS, Javascript, JQuery, SQL	madhusudan.sharma@antra.com	MS	571-933-8251
4	Dawei (David) Zhuang	Spring MVC, RESTful Web Services & Spring Boot	dawei.zhuang@antra.com	DZ	703-662-9073
5	Manas Gampa	Core/Advanced Java, Tech Support	manas.gampa@antra.com	MG	703-520-9458

Course Schedule:

Day	Module	Topics	Duration	Trainer	Time
		Course: HTML, CSS, JavaScript & JQuery			
0	**Orientation**	• Introduction to technical/non-technical team • Lunch • Installing Eclipse as IDE	240 Minutes		
1	**HTML**	• Introduction to HTTP and HTTPs • HttpRequest and HttpResponse • Intro to HTML, Document Structure • HTML Elements (Empty vs Non-Empty) • Attributes, Heading, Paragraphs, Formatting • Links, Table, List	150 Minutes	MS	
2	**HTML**	• Inline and block elements • HTML Encoded characters and Symbols • Form Controls	60 Minutes	MS	
2	**CSS**	• Introduction to CSS • CSS Rules and Syntax • CSS Selectors • CSS Inclusion (Embedded, Inline, External and imported)	90 Minutes	MS	

		• CSS Overriding rules • Comments			
3	**CSS**	• Measurement Units in CSS • CSS Color • CSS Background • CSS Font, Text • CSS Links and Pseudo Classes and Elements • Tables and Borders • Box Model, Margin and Padding • Overflow, Visibility, Positioning, Layers • CSS Rules (@import, @charset, !important) • Media Types	120 Minutes	MS	
3	**JavaScript Basics**	• Introduction to JavaScript • Advantage and Disadvantage • Syntax and Rules and Placement in File	30 Minutes	MS	
4	**JavaScript Basics**	• Data Types, Variables and Scope • Operators, Control Statements • Strings and Arrays • Functions and Closures • Events, Cookies, Local and Session Storage • Objects and Error Handling	150 Minutes	MS	
5	**JavaScript - Advanced**	• Static Members, Properties,Prototypes • Inheritance and Overriding • Polymorphism, Abstract Classes • Strict Mode and Self-Hoisting • Promise	120 Minutes	MS	
5	**HTML 5**	• Introduction to HTML5 • New Elements and Features • Layout • HTML5 inputs and New Form Elements • HTML5 Output Elements	30 Minutes	MS	
6	**HTML 5**	• HTML5 Multimedia • HTML5 Plugins • HTML5 Canvas • HTML5 Drag and Drop • Application Cache • Web Storage • Server Sent Events	60 Minutes	MS	
6	**ECMAScript**	• Introduction to ECMAScript • Let, Const • Lambda (Arrow) Operator, Prototype Setting • Super keyword, Templates • Iterators and Yield statement • Classes • Inheritance • Prototypes	90 Minutes	MS	

7	**JQuery**	• Introduction to JQuery • Selectors, Method Chaining • Introduction to JSON • Object to JSON and Vice Versa • Dom Manipulation and Events • Methods to Add /Remove Properties • Bind, Live, Delegate and On Methods (difference)	150 Minutes	MS	
8	**Bootstrap**	• Introduction to Bootstrap • Grid System, Rows and Columns (media size) • Typography, Paragraph, Block Quotes • Lists, Groups, Tables • Form Controls, Validation • Nav Components, Breadcrumbs and Pagination • Labels and Wedges, Panels, Wells • Modal PopUp, Tabs, Tooltips, PopOver • Alerts, Glyphicons	150 Minutes	MS	
9	**Preparation**	• Candidates will have a day for preparation for second week evaluation			
10	**Second Week Evaluation**	• Second Week Evaluation based on topics covered up to Bootstrap			
	Course: Java Programming				
11	**Introduction to Java**	• Introduction to Java • Programming Environment • Java Program Fundamentals	150 Minutes	MG	
12	**Java Concepts**	• Class and Objects • String/StringBuilder/StringBuffer • OOP Concepts o Inheritance	150 Minutes	MG	

13	**Java and OOPS Concepts**	o Polymorphism
		   o Abstraction
		   o Encapsulation
		• Exception Handling
			150 Minutes	MG	

14	**Data Structures and Collections**	• Data Structures • Collections / Collection Manipulations • Collection Interfaces • Sorting	150 Minutes	MG	
	Course: Web Programming				
15	**Basics**	• Introduction to Web Programing • HTTP Protocol • Client Server Architecture • TCP Sockets	150 Minutes	MG	

16	**Servlets**	• Introduction to Servlets • Filters • JSP	150 Minutes	MG	
17	**Spring MVC**	• Spring Web MVC • Spring Annotations • Controller Method • Model & View Data Flow • Maven	150 Minutes	DZ	
18	**Web Services / Restful Web Services**	• Introduction to Web Services • Restful Web Services and Design • Rest Web Services Using Spring	150 Minutes	DZ	
19	**Spring Boot**	• Spring Boot • Microservices	150 Minutes	DZ	
	Course: jQuery/AJAX				
20	**Advanced jQuery - AJAX**	• JQuery Animation • jQuery Ajax Call • jQuery UI Components • jQuery Datatables	150 Minutes	MS	
	Course: Angular				
21	**Installation**	• NPM : Node Package Manager • Installation	30 Minutes	AG	
21	**Angular Basics**	• Introduction & History • Architecture • Components, Templates, Directives • TypeScript Fundamentals	120 Minutes	AG	
22	**Components & Directives**	• Displaying data and Handling Events • Building Reusable Components • Custom Directives, Pipes	150 Minutes	AG	
23	**Service and Routing**	• Template-driven Forms • Reactive Forms • Consuming HTTP Services • Observables • Routing and Navigation	150 Minutes	AG	
24	**Angular - Advanced**	• Authentication and Authorization • Dependency Injection & Unit Testing • Animations	150 Minutes	AG	
25	**Project**	• Sample Project • Deployment • Real-World Scenarios	150 Minutes	AG	
	Course: Database & Non Coding Aspects				
26	**Oracle PL/SQL**	• Overview • Data Types • Retrieving Data • Formatting Result Sets	120 Minutes	MS	

		• How Queries Are Processed • Query Caching • Operators and clauses • Combining Data from Multiple Tables - Joins • Combining Multiple Result Sets • Recommended Practices			
26	**Application Lifecycle Management**	• Introduction • Different Phases • Introduction to Tools & Artifacts	30 Minutes	AG	
27	**Oracle PL/SQL**	• Listing the TOP N Values • Using Aggregate Functions • GROUP BY Fundamentals • Having Clause • Using a Subquery as a Derived Table • Using a Subquery as an Expression • Using a Subquery to Correlate Data • Using EXISTS and NOT EXISTS	120 Minutes	MS	
27	**Methodologies**	• Introduction • Waterfall	30 Minutes	AG	
28	**Oracle PL/SQL**	• Entity Integrity • Referential integrity • Different Constraints • Normalization Process • PL/SQL Block • Stored Procedures • Functions • Exception Handling	120 Minutes	MS	
28	**Methodologies**	• Agile Methodology	30 Minutes	AG	
29	**NoSQL**	• Introduction to MongoDB • The Mongo Shell • Saving Data	90 Minutes	MB	
29	**Configuration Management**	• Version/Revision Control • Communication Process • Build Process & Tools • Deployment Process and Example • Git	60 Minutes	DZ	
30	**NoSQL**	• Finding Documents • Indexing	90 Minutes	MB	
30	**Testing & Issue Tracking**	• SIT • UAT • Regression • Environments • Introduction to Issue Tracking • Simple Workflow – SIT issue	60 Minutes	AG	

		Optional Course: Node.js			
31	**Introduction to Node.js**	• Modules, Exports and Require • NPM: Node Package Manager • Events and Event Emitter • Streams	150 Minutes	MB	
32	**Restful Web Services with Node.js**	• Getting, Posting and Updating Data • Testing	150 Minutes	MB	
33	**Node Application Patterns**	• Building a Registration Module • Building an Authentication Module • Integration a module into a Web App	150 Minutes	MB	
34	**Nodejs Testing Strategies**	• Introduction • Testing with Node.js and Mocha • Data Access Considerations • External APIs	150 Minutes	MB	
35	**Building Web App with Node.js and Express**	• Setting up Express • Setting up Gulp • Templating Engines • Routing • Databases • Authentication • Structure and 3rd Party APIs	150 Minutes	MB	