

Fundamentals (10 Days)		Java J2EE Hibernate Spring (15 days)	
Programming Concepts	3 days	Core Java	6 days
HTML, CSS, JavaScript	3 days	J2EE Servlet/JSP	3 days
RDBMS Concepts	3 days	Hibernate and JPA	2 days
OOPS Concepts	1 Day	Spring Core/Data/MVC	3 days
		Junit and Mockito	1 day

Fundamentals	
Day 1	<ul style="list-style-type: none"> • Source code Vs Object Code • Using Compiler with flags • Keywords, Variables • Variable scope, lifetime, life time, initial value, modifiers • Programming Constructs (Selection construct and loop constructs) • Declare Array • Store data in array and process elements
Day 2	<ul style="list-style-type: none"> • Pointers, Declare and Initialize pointers • Function definitions/invocations • Call functions by passing values and addresses • Dynamic memory allocation/de allocation • Memory leakage • User Defined Structures • Access data members • Dynamic memory allocation for user defined structures • Array of pointers • Iterate on array of pointers
Day 3	<ul style="list-style-type: none"> • Implement Data Structures • Linked List • Stack • Queue • Binary Tree
Day 4	<ul style="list-style-type: none"> • Web Technologies overview • HTML • HTML document structure • HTML 5 Tags and attributes • Create paragraph, table, list • Embed image, audio, video in web pages • Inline elements vs block level elements • Input Forms using HTML5 and built in validations • HTML5 semantic elements

Day 5	<ul style="list-style-type: none">• Styling web pages using CSS• Inline style vs Page Level Styles vs External stylesheet• Setting background• Box Properties• Coloring elements• Style Lists• Style Tables• Style Images• CSS3 properties
Day 6	<ul style="list-style-type: none">• Embed JavaScript in web pages• Why to use JavaScript• Inline Java Script / Page Level Script / External Scripts• Built in functions• Defining functions and invoking functions• Functions as parameters and return values• Function closures• DOM elements• Manipulate DOM elements• Using Predefined classes in JavaScript• User Defined class and Constructors• Global variables• Validate User Inputs
Day 7	<ul style="list-style-type: none">• RDBMS• Database Server and Client• Connecting to Database server• SQL• Fetching data from Tables• SELECT statement• Manipulation of Data using DML Commands• DDL Statements• Primary Key and Foreign Key• Constraints• Sub queries
Day 8	<ul style="list-style-type: none">• Fetching data from multiple tables• Join Query and Type of Join Queries• Union queries• Pre defined Functions
Day 9	<ul style="list-style-type: none">• PL/SQL• Stored Procedures• Pre defined Procedures• Define and invoke Stored Procedures• Cursors, Exception handling• IN, OUT, INOUT Parameters

Day 10	<ul style="list-style-type: none"> • Advantages and implementation of OOPS Concepts • Abstraction • Encapsulation • Inheritance • Polymorphism
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CORE JAVA	
Day 1	<ul style="list-style-type: none"> • Java Fundamentals – Quick View • Using Array • OOP Concepts - Introduction • Demo on Abstraction, Encapsulation, Inheritance, Polymorphism • Constructor Methods, Accessor Methods • Instance methods Vs Static methods
	Hands on Exercise (Array Processing, OOPS Concepts)
Day 2	<ul style="list-style-type: none"> • Package (creating, importing, access control, Jar file) • Inheritance in depth • Polymorphism through Overloading and Overriding • Overriding Object class methods
	Hands On Exercise (Overriding, Overloading, Object Methods overriding)
Day 3	<ul style="list-style-type: none"> • Java Language Library(Wrapper class/ String /String Buffer Class) • Exception Handling • Abstract classes/ Interfaces in JDK 7 and JDK 8) • Comparable/Comparator interfaces
	Hands on (Sorting of Objects, Finding Max/Min, Exception Handling)
Day 4	<ul style="list-style-type: none"> • Demo on Data Structures • Generic classes/interfaces • Collection API (List, Set, Map) • ArrayList, LinkedList • HashSet, TreeSet • HashMap, TreeMap • Iteration of Collection Objects (Iterators,for loop)
	Hands On(Manipulate Collection of objects, Process List Data and Store in Map Objects)
Day 5	<ul style="list-style-type: none"> • Class Relationships • Inner classes/ Anonymous Inner class • Lambda Expressions • Functional Interfaces • Stream API(Pipes and Terminal Operation)

	Hands On(Lambda Expressions, Process Collection through Stream)
Day 6	<ul style="list-style-type: none"> • JDBC API • Driver • Connection • Statement Vs PreparedStatement Vs Callable Statement • Retrieving Generated Primary key values • ResultSet • Multi Threading
	Hands On(Console Application using JDBC and Layers)
J2EE	
Day 7	<ul style="list-style-type: none"> • Desktop Application Vs Enterprise Application,N-tier Architecture • Overview of J2EE technologies, Java based Applications Server • Introduction to Servlet (Development, Configuration, Deployment, Execution) • Servlet Lifecycle • ServletConfig, ServletContext, RequestDispatcher • Process HTML form Data
	Hands on(Process HTML form data, RequestDispatcher)
Day 8	<ul style="list-style-type: none"> • JSP Basics • JSP Page elements • JSP Lifecycle • JSP Action Tags (useBean, setProperty,getProperty,include,forward)
	Hands on(Present Data using JSP)
Day 9	<ul style="list-style-type: none"> • EL • JSTL • Core Tags (out, if,choose,set, remove, forEach) • format tags(dates, numbers) • Configure and use DataSource • MVC Architecture, Front Controller
	Hands On (MVC Web Application Development using Servlet,JSP)
H I BERNATE	
Day 10	<ul style="list-style-type: none"> • Hibernate • Configuration of SessionFactory in Desktop and Web Applications • Basic ORM and Session API • Inheritance Mapping, Component Mapping, elements and Composite Element • JPA and hibernate • JPA Annotations

	<ul style="list-style-type: none"> Persistence Context, entity Manager
	Hands On(use hibernate and JPA in MVC Web Application)
Day 11	<ul style="list-style-type: none"> Entity Association Mappings(hibernate and JPA) Uni Directional Bi Directional Hibernate Query Language and JPQL
	Hands On(Entity Associations)
SPRING	
Day 12	<ul style="list-style-type: none"> Spring Introduction Spring Modules Spring core and dependency Injection Define and Access beans through Application Context XML less Spring application using Annotations and AnnotationContext Spring Web Application Context
Day 13	<ul style="list-style-type: none"> Spring Data Spring JdbcSupport JdbcTemplate Spring Integration with Hibernate and JPA
	Hands On (Integrate Spring with JPA in Web Applications)
Day 14	<ul style="list-style-type: none"> Spring MVC Configure dispatcher Servlet Spring MVC using Annotations Define Controller Methods and Map to URLs Spring Tag Library , Read HTML form data Spring REST Controllers
	Hands On (Use Spring MVC module in Web Application)
TESTING	
Day 15	<ul style="list-style-type: none"> JUnit <ul style="list-style-type: none"> Write Test Cases and Execute TestSuite Mockito

	<ul style="list-style-type: none">• Integrate Junit and Mockito• Behaviors• Exception Handling• Create Mock• Ordered Verifications
	Hands On(Junit Test Cases and Mock objects using Mockito)