

Day wise break up for the remaining 9 days of session, split in to 18 half days:

Day 1:

- Web Application Basics
  - How the Web works, Thin Clients, TCP/IP
  - HTTP overview, Brief HTML review
  - Overview of Java EE, servlets & Web applications.
- Servlet Basics
  - Servlet API
  - HTML Forms
  - HTTP: Request-response, headers, GET, POST
- Overview: How Servlets Work
  - Servlet Lifecycle: init(), service(), destroy()
  - Requests and responses
- Core Servlet API
  - GenericServlet
  - ServletRequest, and ServletResponse
- HTTP Servlets
  - HttpServlet
  - HttpServletRequest and HttpServletResponse
  - Accessing Parameters

Day 2:

- JSP Overview
  - JSP architecture
  - JSP tags and JSP expressions
  - Fixed Template Data
  - Lifecycle of a JSP
  - JSP Expression Language (EL)
  - The JSTL

Day 3:

- Spring overview and architecture
  - What is Spring framework?
  - Why Spring framework?
  - Spring framework architecture
  - Usage scenario
  - Step by step refactoring of Helloworld application using Dependency Injection
- Spring Dependency Injection Basics
  - What is and Why Dependency Injection (DI)?
  - Two DI variants
  - Reading configuration
  - Bean configuration
  - Bean parameter types
  - Auto-wiring and auto-scanning
  - Bean naming

Day 4:

- Spring Dependency Injection Annotation
  - Annotation-based Dependency Injection - @Autowired, @Required
  - Qualifier - @Qualifier, Custom qualifier
  - @Component and further stereotyped annotations - @Service, @Repository, @Controller, @ComponentScan

Day 5:

- Spring Database Introduction
  - DAO support
  - @Repository annotation
  - Using HibernateTemplate to build a DAO layer

Day 6:

- Spring Transaction
  - Transaction management in Spring framework
  - Global transaction vs. local transaction
  - PlatformTransactionManager interface
  - Declarative transaction management
  - Transaction propagation

Day 7:

- Spring MVC
  - Role of DispatcherServlet, HandlerMapping, ViewResolver
  - Simple Spring MVC application demo

Day 8:

- Creating a RESTful service using Spring MVC

Day 9:

- Spring Boot
  - What is and Why Spring Boot?
  - Getting started with Spring Boot
  - Building a Web app using Spring Boot
  - Auto-configuration
  - SpringApplication class

Day 10:

- External configuration
- Actuator
- Misc. features

Day 11:

- Basics of HTML and CSS
  - HTML elements and attributes
  - Most common tags – headings, p, div, span
  - Bullets and numbers (lists)
  - Working with tabular data
  - Forms

Day 12:

- Styling basics – CSS inline, internal and external
- Selectors, properties and values
- Importing external CSS
- Using Bootstrap CSS framework

#### Day 13:

- Introducing Angular
  - What is Angular?
  - Angular versions
  - Advantages of Angular
  - Architecture overview
  - Introduction to key building blocks of Angular
  - Setting up Development Environment
  - Setting up Angular
  - Creating an app using Angular CLI
  - Setting up Bootstrap for styling
  - How an Angular app gets loaded and started?
- Components & Templates
  - What is a Component? What are its benefits?
  - The Root component
  - What are Decorators?
  - Understanding the component decorator
  - Creating and using components
  - Component templates
  - Component styles
  - Lifecycle Hooks

#### Day 14:

- Data Binding
  - What is Data Binding?
  - Interpolation
  - Property binding
  - Event binding
  - Passing and using event data
  - Two-way data binding
  - Component interaction
  - Parent to child interaction
  - Child to parent interaction
- Directives
  - Understanding Directives
  - ngIf – Outputting data conditionally
  - ngStyle – Styling elements dynamically
  - ngClass – Applying CSS classes dynamically
  - ngFor – Outputting lists
- Pipes
  - Introduction to Pipes
  - Using pipes
  - Parameterizing pipes
  - Chaining multiple pipes
  - Creating custom pipes

Day 15:

- Building Single Page Apps using Routing
  - Need for a Router
  - Setting up and loading routes
  - Navigating with router links
  - Styling active links
  - Navigating programmatically
  - Passing parameters to routes
  - Fetching route parameters
  - Passing query parameters
  - Retrieving query parameters
  - Setting up nested routes

Day 16:

- Services & Dependency Injection
  - Need for a Service
  - Creating a service
  - Understanding Dependency Injection (DI) and its benefits
  - Using a service within a component
  - Using a service within another service
  - Cross component interaction using a service
- Server Communication
  - Introduction to Angular HttpClient service
  - Sending requests to server
  - Getting data from the server
  - Sending data to the server
  - Handling Http errors
  - Adding headers
  - URL parameters

Day 17:

- Forms & Validation
  - Template-driven forms vs Reactive forms
  - Building a form
  - Registering form controls
  - Submitting the form
  - Understanding form state

Day 18:

- Adding form validation
- Outputting Validation Error messages
- Using two-way binding
- Grouping form controls
- Resetting forms