## **Training TOC: Angular (Intermediate to Advanced)**

**Pre-requisites Skills:** HTML5, CSS, JavaScript, Angular Basics (Components, Data Binding, Pipes, Events, etc..)

Total Duration: 8 days (2 hours per day)

Day#	Topic	Sub Topic
1	Angular Custom Pipes	<ul> <li>What is CustomPipe?</li> <li>PipeTransform Interface</li> <li>Custom Pipe : Scalar, Collection Based</li> <li>Parameterized Custom Pipes</li> </ul>
2	Parent and Child Communication	<ul><li>Parent- Child using @Input()</li><li>Child - Parent using @Output</li></ul>
3	Custom Directives	<ul> <li>Overview about Pre-defined directives</li> <li>Attribute vs Structural directives</li> <li>Why do we need custom directives?</li> <li>How to create structural and attribute directives</li> </ul>
4	Reactive Forms	<ul> <li>React Forms</li> <li>Validation using Reactive Forms</li> <li>Final data submission</li> <li>Form Level and Field level validations</li> </ul>
5	DI and Custom Services	<ul> <li>What is Dependency Injection and how does DI work in Angular</li> <li>What and Why services?</li> <li>Service providers and injectors</li> <li>Injector hierarchy in Angular(root, module and component)</li> <li>How to create and use a service?</li> </ul>
6	RxJS in Angular	<ul> <li>What &amp; Why Observables?</li> <li>What is RxJs (just overview)</li> <li>Creating and using an observable</li> <li>Using RxJs operators</li> </ul>

7	Http Client Service	<ul> <li>What is HttpClient?</li> <li>How to register it?</li> <li>Performing CRUD operations (use jsonserver as backend)</li> <li>GET, POST, PUT, DELETE</li> <li>Create Angular Service which uses HttpClient and calls a REST API</li> <li>Handling Request Errors</li> <li>Configuring HTTP URL parameters</li> <li>Showing how to add a 404 Page</li> </ul>
8	Routing in Angular	<ul> <li>What &amp; Why routing?</li> <li>Angular Router features</li> <li>How to setup routing</li> <li>Talk about route config file</li> <li>RouterModule.forRoot() method</li> <li>Router links and router outlet</li> <li>Nested routing</li> <li>Working route parameters</li> <li>Control navigation with UI elements</li> <li>Identify the active route</li> <li>Adding a redirect</li> </ul>
	Security for Angular Apps	<ul> <li>How to create secured routes?</li> <li>Route Guards: CanActivate</li> <li>Programmatic navigation using Router class</li> <li>AuthGuard Services</li> <li>Generate tokens after login: using localStorage</li> </ul>