SILICON SOFTWARE SERVICES
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Week	Execution	MODULE	TOPICS COVERED
1		SQL	RDBMS Fundamentals, Normal Forms & introduction to Oracle, DB Design
			Data Retrival, Restriction and Sorting, Single row functions, Multiple row & Group Functions
			Join, Sub queries & Set operators, Correlated Subqueries DDL, DCL DML & TCL
			Other Schema Objects - views, Index & synonyms
2,3,4		Core Java	OOPS, Java Introduction & Language Fundamentals
			Introduction to Java API, Strings
			Inheritance & Polymorphism
			Abstract Class, Interfaces & Exception Handling
			IO Streams, Collections, Streams, Functional Programming
			Collection FrameWork & Generics In Java
			Mulit-threading, Executor Framework, Concurrency Framework
			Java 8 – DateTime, Lambda Expressions
		Core Java – JDBC	Developing Applications for the Java™ SE Platform - JDBC
5		Basics of JEE	JSP,JSTL,Servlets introduction, Life Cycle of a servlet
			HttpServlet, Other objects,
6,7		HTML 5	HTML5, Introduction to building a web page, Creating HTML Documents
		CSS	Intro to CSS3, Adding images, Responsive, More CSS techniques,
			Organizing information with tables and definition lists, creating layouts, Bootstrap
		Javascript and Jquery	Javascript & Jquery - DOM, Selectors, AJAX, Constructors, Prototype

8.9	Front End	FEE - Angular	Introduction to JS, HTML5 and CSS3,Media Queries, BootStrap
			TypeScript - Introduction, Variables, Static and UD Types, Unions
			Tuples, Any, Var vs Let, Scope
			Functions - Spread, REST, Default, Optional, Arrow Function
			Classes - Objects, Inheritance, Interface, Access Modifiers, Scope
			Modules, Duck Typing
			Angular - Project Structure, One & Two Way Binding, Events, Templates(ngfor, if, switch)
			Services, ng hooks, Observable & Promise
			Modules, Routes and Navigation
			Forms(Template and Reactive), Validations(Built In & Custom), Pipes, Directives
			Exceptions, Interceptors, Component Interaction (@input,@output,Subject,BehaviourSubject)
			WorkSpace, Elements, Libraries, Mono-Repo
			Unit Testing, build and deployment
8,9		FEE - React	Introduction to JS, DOM,HTML5 and CSS3,Media Queries, BootStrap
			Variables, Loops, Operators, Scope, Hoisting
			Arrays, Spread,REST, DeStructuring
			Class-Inheritance, Methods, Extended Class,Map, filter and Reduce Functions
			Functions - Arrow Functions,
			Lambda Expressions
			REST - Introduction, Why JSX, Hello World Apps, Project Structure
			Class vs Functional Components, State and Props(difference, when to use what, mutable or immutabilty, direction of flow), PropTypes, Auxillary Components, Controlled and Uncontrolled Components, Component Interaction (Parent to Child and Child to Parent), Iteration & Conditional Response
			Event Bubbleup, Component Wrapper, Integration of CSS Modules

			Forms Validations(YUP, Formik, Standard), Events Handling, Data Binding
			UseState, UseRef, USeEffect,UseHistory Usage
			React Class Based Components - componentDidMount,WillUpdate,should upate, didcatch etc
			Custom Hooks, HTTP - Fetch, Axios, Services, Behaviour Subjects
			StateLess, StateFulll and Container Components, Error Handling
			Build, Env, CORS
10	Build Tools (Step 2)	Maven	What is Maven, Why command line
			Dependency Resolution, Configurations
			Installation Approach - Archetype, RAD, Setup Commands, Download from GIT
			Life cycles, Phases and Goals, Profiles, Parent-Child Module
			Dependency Plugins, Local Maven Repository Vs Project Centralise Repository
10	Core JEE Platform (Step 3)	Introduction to Spring (Core)	Introduction, Bean Container, IoC, DI, AOP, JDBC
			Environment Setup, Beans Definition, Scope, LifeCycles, Post Processors, Properties
			Injecting Collections, Auto-Wiring, component-scan
			Spring Boot, Annotations, DevTools, Configuration, Repostory
11	MVC Framework (Step 4)	Spring - MVC 5.0	Introduction, MVC Patterns, DispatchServlet, View Resolver
			Configurations, @Annotations (Controller, RestController), ModeView
			JSP Views, Resource Mapping, Templating, Form Field Def/Validations
			Log4j Configurations, Intro on JavaScript & jQuery, REST Service
11	Database Persistence Framework (Step 5)	Spring ORM (Hibernate+JPA)	Introductions, DataSource Configurations
			Object Relational Mapping , About Maven Dependencies and Configs , Entity classes and Session Factory , CRUD Operations – APIs
			Hibernate Configurations, Session Factory, Sessions, Mapping XML, Entities, Annotation Based, First/Second Level Caching , Transient, Persistent and Detached Objects

			Introduction, JPA Interface, Crud Operations
			Custom SQL Annotations, Transaction Support, Error Handling
			Named Queries, Lazy Loading, HQL, Association, Inheritance Mapping, Cascading Approach, Exception Handling
12	Environments	Environments	Maven CLI Commands, Spring CLI Commands, Linux Commands, Apache Tomcat
12	Unit Testing Framework (Step 7)	Unit Testing	Unit Testing with Junit 5, Test Suites, Life Cycle, Assumptions Test, Various Assertion, Negative + Positive Test Case
			Mockito with Junit