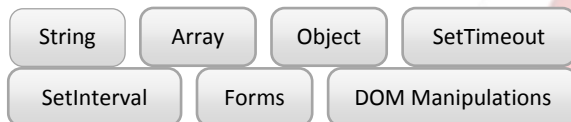# CREDO SYSTEMZ
Simplifying IT

REAL-TIME PROJECTS

Array, String, Number Manipulation
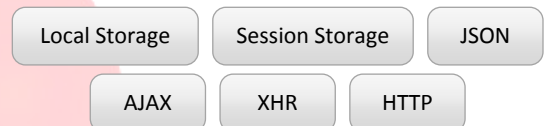Doing different challengeable Machine tests which are conducted in top MNCs.

Skills:

String	Array	Object	SetTimeout
SetInterval	Forms	DOM Manipulations	

Movie, Jokes & User APIs calls
An app with Registration, login, access different APIs via AJAX, logout.

Skills:

Local Storage	Session Storage	JSON
AJAX	XHR	HTTP

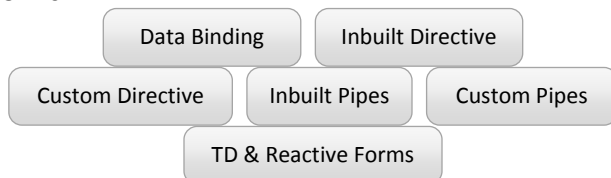### Product Management in Angular
A real-time project with Product Management which includes, Add, Edit, Delete and Search!

Skills:

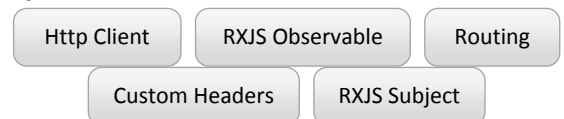|		
Data Binding	Inbuilt Directive	
Custom Directive	Inbuilt Pipes	Custom Pipes
TD & Reactive Forms		

Auth, Weather, News & Zomato App
A Project which accesses your JSON data and authenticate the credentials. Call Weather, News & Zomato APIs.

Skills:

Http Client	RXJS Observable	Routing
Custom Headers	RXJS Subject	

REAL-TIME PROJECT - SHOPPING CART APPLICATION

A real-time Shopping cart app from very scratch to Advanced level. The project includes Register, Login, Client-side Authorization, Server-side Authorization, Add Products, List products, Filter products by category wise, Add to cart, View cart, Update cart, Delete cart items, Search, View Product details, Logout.

Technologies

How to convert HTML app into Angular App, How to load external CSS, JS & Jquery, Routing, Route Guard, Dynamic Routing, Connect REST API, Observable, Subject, Behaviour Subject, Event Emitter, HTTP Interceptor, Child Routes, File upload, Split app into different Modules, Eager Loading, Lazy Loading, Async Loading.

Integrate Angular Material Module and UI Components

Create Node Server, Add Express app, Create RESTFUL API, Middlewares, Receive post data from front-end, Receive BLOB data, JWT, User Authorization, Dynamic Routes.

CURD applications in MongoDB, Join Query in MongoDB.

How to do a Unit Test for a function, String, Array and a Component.
The Real-time Project Demo - **Live Preview**

TYPESCRIPT COURSE CONTENT

SECTION 1: TYPESCRIPT INTRODUCTION

- ➢ What is TypeScript?
- ➢ Features of TypeScript.
- ➢ How to compile TypeScript into JS?
- ➢ What is Transpilation?

Real-time Practicals

- ✓ Installing Typescript Engine in Node.
- ✓ Compiling TS code (source) to JS code (source).

SECTION 2: NODE INTRODUCTION

- ➢ What is Node?
- ➢ Node Environment setups.
- ➢ A Brief Node Introduction.
- ➢ What is Node Modules?
- ➢ What are the Types of Node Modules available?
- ➢ What is Local & Global Module?

SECTION 3: TYPESCRIPT ENVIRONMENT SETUPS

- ➢ Install TypeScript Engine in Node.
- ➢ Execute the 1stTypeScript code.
- ➢ What is watcher?
- ➢ Introduction of ts-node NPM.

Real-time Practicals

- ✓ Practicing Watcher mode.

SECTION 4: VARIABLES IN TS

- ➢ Difference between Static & Dynamic type checking.
- ➢ How to Declare & Define Variables in TS?
- ➢ What is any in TS?
- ➢ Difference between let & var.
- ➢ Template string introduction.

SECTION 5: DATATYPES IN TS

- ➢ Brief Introduction of below types,
  - String
  - Number
  - Boolean
  - Array
  - Object
  - Tuple
  - Enum

- Any
- Void
- Never
- Null
- Undefined

Real-time Practicals

✓ Practicing different types of Data types in TS.

SECTION 6: DIFFERENT TYPES OF PARAMETERS IN TS

- ➢ Difference between JS parameter & TS Parameter.
- ➢ Let vs var vs const
- ➢ Passing Parameters to the functions.
- ➢ How to pass optional parameter?
- ➢ What is Default Parameter?
- ➢ How to use default parameter before required parameter?
- ➢ Rest Parameter overview.

Real-time Practicals

✓ Passing all above parameters in a single function.

SECTION 7: FEATURES IN TS.

- ➢ Arrow functions.
- ➢ Where to use Arrow functions?
- ➢ Destructing an Array.
- ➢ Destructing and Object.

SECTION 8: OOPS IN TYPESCRIPT

- ➢ What is Class?
- ➢ What is Class definition? ?
- ➢ What is Object? ?
- ➢ How to Create Object?
- ➢ Brief introduction about,
  - Property
  - Method
  - Constructor
- ➢ What is Inheritance?
- ➢ Different types of Inheritance in TS. ?
- ➢ Access modifiers in TS. ?
- ➢ Readonly in TS. ?
- ➢ Static Property & Methods in TS.
- ➢ Interface in TypeScript.

Real-time Practicals

✓ Practicing all opps in a real-time examples.
✓ Converting JS function into TS Class with oops concepts.

ANGULAR 8 TRAINING COURSE CONTENT

SECTION 1: INTRODUCTION TO ANGULAR
- ➢ What is Angular?
- ➢ Difference between framework & Library?
- ➢ History of Angular and its versions.
- ➢ Why Angular?
- ➢ Features of Angular.
- ➢ What is Single Page Application?
- ➢ Difference between SPA & Traditional Application.
- ➢ What is MVC?
- ➢ How MVC works in Client & Server sides?

SECTION 2: ANGULAR 8 ENVIRONMENT SETUPS
- ➢ What is Angular CLI?
- ➢ Purpose of the CLI.
- ➢ Angular CLI installation.
- ➢ Create a Basic Angular App by using CLI.
- ➢ Executing the Angular Application in the browser.
- ➢ How an Angular app Bootstrapping?
- ➢ Brief explanation about the structure of the Angular App.

SECTION 3: MAIN BUILDING BLOCKS OF ANGULAR
- ➢ An Overview of the below Building blocks of Angular
  - • Modules
  - • Components
  - • Templates
  - • Metadata
  - • Data binding – Directives
  - • Services
  - • Dependency Injection.
- ➢ What is Module & its importance?
- ➢ What is Root Module and Child Module?

SECTION 4: COMPONENTS IN ANGULAR 8
- ➢ What is Component?
- ➢ How to create a Component manually and through CLI?
- ➢ What is Component decorator and its Meta data?
- ➢ Component's Structure overview.
- ➢ Component Lifecycle Hooks.
- ➢ Components Interactions overview.
- ➢ How to pass Data from Parent to Child & Child to Parent?

SECTION 5: DATA BINDINGS AND EVENT BINDINGS IN ANGULAR 8
- ➢ What is Data Binding?
- ➢ What is Two-way Data Binding?

- ➤ String Interpolation.
- ➤ Style Binding, Class Binding.
- ➤ Overview of Event Binding.
- ➤ Element reference and $event service in Angular.
- ➤ Event Filtering

SECTION 6: SERVICES IN ANGULAR 8
- ➤ What is Services?
- ➤ Why should we use Services?
- ➤ How to create Services in Angular?
- ➤ Singleton Object - Overview
- ➤ What is Dependency Injection?
- ➤ How to use Dependency Injection?
- ➤ What is providers?
- ➤ What is @Injectable()?
- ➤ What is Hierarchical DI?

SECTION 7: DIRECTIVES & CUSTOM DIRECTIVES IN ANGULAR 8
- ➤ What is Directives?
- ➤ What are the Different kind of Directives available in Angular?
- ➤ Difference between Structural & Attribute Directives.
- ➤ Overview of All Structural & Attribute Directives.
- ➤ Difference between ngIf & hidden directives.
- ➤ How to create Custom Attribute Directive?
- ➤ How to create Custom Structural Directive?
- ➤ How to pass Input property to the custom directive?
- ➤ How to receive Input property from the custom directive?

SECTION 8: PIPES IN ANGULAR 8
- ➤ What is Pipe in Angular?
- ➤ Purpose of the Pipes.
- ➤ Difference between Pipes & Directives.
- ➤ Detailed explanation of the below Pipes,
  - • Lowercase
  - • Uppercase
  - • Titlecase
  - • Slice
  - • Json
  - • Number
  - • Percent
  - • Currency
  - • Date
- ➤ What is Pure Pipe & Impure Pipe?
- ➤ How to create Custom Pipes?
- ➤ What is chaining Pipes?
- ➤ What is Parameterized Pipe?

SECTION 9: COMPONENTS COMMUNICATION
- ➤ Overview of Components Interaction

- ➤ Share data between components by using Service
- ➤ Component Interaction from Parent to Child.
- ➤ Component Interaction from Child to Parent.
- ➤ @ViewChild decorator overview
- ➤ Components Interaction by using Event Emitter & Subject and observable

SECTION 10: EVENT EMITTER AND OTHER SPECIAL DIRECTIVES
- ➤ What is Event Emitter?
- ➤ When to use Event Emitter?
- ➤ How to transfer data with Event Emitter?
- ➤ How to create Custom Events and Trigger?
- ➤ View Encapsulation Overview.
- ➤ What is ng-content and its purpose?
- ➤ ng-container Directive overview.

SECTION 11: TEMPLATE DRIVEN FORM IN ANGULAR
- ➤ What is Template Driven Form?
- ➤ Purpose of Form.
- ➤ How to setup a form in Angular?
- ➤ What is form control and how to set it?
- ➤ What is ngForm?
- ➤ How to Access form values?
- ➤ What are the form states available in Angular?
- ➤ Form Validations.
- ➤ HTML5 Validation vs Angular form Validation.
- ➤ How to set default values in form fields?
- ➤ Setup One-way data binding in Angular.

SECTION 12: REACTIVE FORM IN ANGULAR
- ➤ What is Reactive Form?
- ➤ Difference between Template Drive & Reactive Form
- ➤ How to sync view & Reactive form TS?
- ➤ What is Reactive form control and how to set it?
- ➤ How to attach Dynamic Validations?
- ➤ How to get Reactive from Values?

SECTION 13: SERVICE AND DEPENDENCY INJECTION IN ANGULAR
- ➤ What is Service in Angular?
- ➤ Create & configure Service in Angular.
- ➤ How to do Dependency Injection in Angular?
- ➤ What is Singleton Object?
- ➤ Multiple DI in single Class.

SECTION 14: ROUTING IN ANGULAR 8
- ➤ What is Routing?
- ➤ How Routing makes our App into SPA?
- ➤ How to configure Routing in an Application?
- ➤ Load our components dynamically based on url path.
- ➤ How to create Child Route?
- ➤ Navigating to other links programmatically.

- ➤ Passing Parameter to the Routes.
- ➤ Static Route vs Dynamic Route.
- ➤ Fetching Route Params.

SECTION 15: HTTP & OBSERVABLE IN ANGULAR
- ➤ How to establish HTTP request to Server side.
- ➤ How HTTP Mechanism works?
- ➤ What are the methods available in HTTP?
- ➤ What is Observable & Observer?
- ➤ What are the call back methods available in Observable?
- ➤ How to create a Custom Observable?
- ➤ What is next(), error() and complete() ?
- ➤ How to connect any backend & APIs?
- ➤ What is CORS?
- ➤ How to resolve CORS errors?

SECTION 16: AUTHORIZATION IN ANGULAR
- ➤ Client side Authorization vs Server side Authorization.
- ➤ How to create Guard in Angular?
- ➤ Setup Route Guard.
- ➤ Server side Authorization by using JWT Token.
- ➤ HTTP interceptors.

SECTION 17: FILE UPLOAD IN ANGULAR
- ➤ Angular form setups for File Upload.
- ➤ Server side setups for Angular.
- ➤ Multer NPM in node.
- ➤ How to use Multer NPM as middleware in Node?
- ➤ Attach the Multer middleware in server-side routing.

SECTION 18: REAL-TIME PROJECT IN ANGULAR
- ➤ Applying all the above in a real-time Shopping Cart Application.

NODE JS TRAINING COURSE CONTENT

SECTION 1: INTRODUCTION TO NODE JS
- ➤ What is Node JS?
- ➤ Overview of Node JS?
- ➤ How Node JS Works?
- ➤ Event-Driven concept overview

SECTION 2: NODE PACKAGE MANAGER
- ➤ What is NPM?
- ➤ What types of NPMs available?
- ➤ How to install NPMs?
- ➤ Different Useful NPMs example

SECTION 3: CREATE A NODE SERVER

- ➢ What is HTTP NPM?
- ➢ How to create a Node Server?
- ➢ How to run a Node Server?
- ➢ What is Nodemon NPM?

SECTION 4: EXPRESS JS

- ➢ What is Express JS & why Express JS?
- ➢ Middleware Overview.
- ➢ Middleware Types and usage.
- ➢ What is request & Response Object?
- ➢ What are the Response methods available?
- ➢ Server-side Routing by using Express.
- ➢ Body-parser NPM overview
- ➢ Multer NPM overview
- ➢ RESTful API in Express

SECTION 5: JSON WEB TOKEN – JWT

- ➢ What is JWT?
- ➢ Why JWT?
- ➢ How to create JWT token?
- ➢ How to verify the JWT token?

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