**Course Content.**

**Week 1.**

**Introduction to JavaScript.**

- What is JavaScript.
- Variables in JavaScript.
- Objects in JavaScript
- Arrays in JavaScript
- Methods and Functions in JavaScript
- Loops in JavaScript
- Debugging in JavaScript
- Conditions in JavaScript
- Switch case statements in JavaScript

**Introduction to UI5.**

- What is UI5.
- Tools for UI5 app Development.
- Installation Guide and Support.
- MVC Architecture.
- Version in UI5.
- Basic Designs in UI5 using XML views.
- Responsiveness of Apps in UI5.
- Understanding (Properties, Events, methods, Aggregations and Associations) of UI5 Controls.

**Week 2**

**Controllers in UI5.**

- What is controller in UI5
- Definition in Controller.
- Basic validations in controllers.
- Understanding Life Cycle Functions in Controllers.
- Debugging UI5 Apps.
- Understanding Console Management of Google Chrome for learning debugging skills.
- Does and Don'ts in controllers.

**Fragments in UI5.**

- What are fragments in UI5.
- Understanding Nested Views in UI5.
- Implementing Dialog Controls in Fragments.
- Best Practices related to Fragments.

**Week 3**

**i18n in UI5**

- what is i18n in UI5.
- implementing i18n in xml view.
- Implementing i18n in Controller.
- Implementing i18n in Fragments.
- Handling i18n in Fiori Launchpad.
- Dynamic handling of i18n.

**Models in UI5**

- What are models in UI5
- Types of Models in UI5
- Understanding and Implementing different Models with real time Examples)
- JSON Model, Resource Model with Practice Examples.

**Binding in UI5**

- What is Binding in UI5?
- Type of bindings in UI5.
- Difference between one-way and two-way bindings in UI5 with practical examples

**Week 4**

**Formatters in UI5**

- What are formatters in UI5.
- Implementing formatter in XML view
- Implement formatter in Controller
- Implementing formatter in Fragments

**Expression Binding in UI5**

- What is expression Binding
- implement expression binding in XML views.
- Implementing expression bindings in fragments

**Navigation and Routing in UI5.**

- Difference between Navigation and Routing in UI5.
- Navigation from one view to another View.
- Passing Data and navigation from one view to another.
- Best practices of Navigations.

**Week 5**

**How to Create Tables in ABAP**

- Understanding tables, data elements, views and types in ABAP.
- Inserting data in Tables.
- Deleting and updating data in Custom tables.

**What is oData?**

- Understanding transaction for oData Services.
- How to Register and Activate oData Gateway Services.
- Understanding DPC and MPC Classes.
- How to import tables and RFC in oData
- Understanding Entity Types, Entity Set and Associations in Gateway Project.
- Implementing various operations in oData
- Create in oData (create Entity)
- Read in oData (Get Entity and Get Entity Set)
- Update in oData (Update Entity)
- Delete in oData (Delete Entity)
- Queries in oData (Filter Operations)

**Week 6**

**Integration of UI5 App with oData Service**

- How to connect UI5 app with Gateway.
- Implement CRUD operations with UI5 and oData.
- Implementing Best Practices with Binding the Gateway Services with UI5 Apps.
- Testing of UI5 apps with oData.

**Deployment of UI5 App to System.**

- Understanding Deployment of UI5 apps to System.
- Understanding Deployment of Apps using UI5 ABAP Repository.
- Understanding basics concept of Cloud Platform for UI5 Apps.
- Creating transports and Package for the deployment process.

**What is FIORI?**

- Understanding Fiori Design Principles and Guidelines.
- Understanding FIORI UX Strategy.
- Understanding Fiori Tile Configuration Process.
- Understanding lpd_cust complete config Process.
- Understanding Catalogs Tiles and groups configurations.
- Understanding Semantic Objects.
- Understanding Embedded and Central Hub Deployment Systems.
- Deployment of FIORI Apps to Fiori Launchpad.

**FIORI Standard Apps**

- How to Activate a Standard Fiori App.
- How to Extend a Standard Fiori App.

**Week 7**

**Advance Topics in UI5 & Fiori**

**Smart Controls in SAPUI5**

- Smart Table
- Smart Forms
- Smart Fields
- Smart Filter Bar

**MTA (Multi Target Applications) in BAS**

- Resources in MTA
- Modules in MTA
- Yaml file understanding and deployment
- Manage App Router Configuration

**Critical & Complex Topics**

- Deployment of UI5 Apps in S4 on Premise and on Cloud Foundry
- On Premise Fiori Launchpad
- Cloud Foundry Complete Launchpad Services
- Migration from SAP WEB IDE (Neo/on Premise) to Business Application Studio
- Integration of JavaScript API in UI5 Apps
- Cross App Navigation in UI5 Apps in FLP (on Premise and on Cloud foundry)
- Overview of Fiori Elements Template in BAS
- Open Guided Development Tools in BAS
- Adaptation Project in BAS
- Cloud Connector Configuration and Setup

**Week 8**

**Fiori Elements Overview**

- What are Fiori Elements
- Types of Applications in SAP Fiori Elements
- Tools for Fiori Elements
- Fiori Elements Architecture
- Features of Fiori Elements
- SAP vision for Fiori Elements

**List Report Fiori Elements**

- How to Create a CDS View
- Joins in CDS views
- Associations in CDS Views
- Creating List Report in CDS Views
- Understanding and Creating UI Annotations in CDS views
- Creating a List Report in Fiori Elements using BAS
- Understanding about BAS in Detail

**Analytical List Page in Fiori Elements**

- Create a CDS view for ALP
- Register a Gateway Service for that CDS view
- Understanding a complete floor plan about ALP
- Understanding smart business tools for ALP
- Create Charts and Dashboards in ALP in Fiori Elements using BAS

**Overview Page in Fiori Elements**

- Creating multiple CDS views for OVP
- Creating Charts in OVP
- Creating Table in OVP
- Creating Intent Based Navigation in OVP