



SAP UI5 AND SAP FIORI TRAINING

COURSE DETAILS & CURRICULUM

Basic Foundation for UI5

Lesson 1: HTML

- Creating our first web page
- Line breaks, paragraphs and headers
- Bold, italics and comments
- Lists
- Linking to another page
- Images
- Directory structures
- New audio tag, New video tag
- Table
- Forms, Get/Post method, action

Lesson 2: Cascade Style sheet

- External style sheet
 - Font properties
 - CSS comments
 - Box model, padding, border, margin, padding

- Classes
- Div and Span
- Working with colors
- Background images
- ID's, child selectors, pseudo classes
- Styling links, styling lists
- Rounded corners
- Linear gradient
- Float and clear
- New tags for the layout

Lesson 3: DOM

- Document Object Model
 - Relating HTML Elements

Lesson 4: JavaScript

- Introduction to JavaScript
- Statements and Comments
- Finding Errors
- Variables, Data Types
- Operators
- Strings
- Events
- Functions, Functions with Parameters
- Functional with Multiple Parameters
- Variable scope
- Arrays
- Statements if, else, nesting if, Complex Conditions, switch
- While loop, for loop
- Objects, properties and methods
- Referencing elements in JavaScript
- Changing an image source
- Forms, form values
- Form validation text boxes, and passwords

- Radio buttons, Check Boxes
- Creating HTML Element
- Modifying HTML Elements
- Appending HTML Elements
- Deleting HTML Elements
- Regular Expressions
- Object oriented Javascript
- Prototype in Javascript
- Javascript Literals
- Javascript Objects, properties, and functions

Lesson 5: jQuery

- Selectors
- Events
- DOM Manipulation

SAP UI5 Framework and Controls

Lesson 6: SAPUI5

- Installing SAPUI5
- 1.
 - a) SAPUI5 Tools
 - b) Versioning of SAPUI5
 - c) Upgrading jQuery for SAPUI5
 - d) Documentation
- Before you Start
 - Naming Conventions for Control and Application Development
 - Browser and Platform Matrixes
 - Compatibility Rules
 - Experimental Flag
 - Security Information for SAPUI5
 - Getting Started with SAPUI5
 - a) Create Your First SAPUI5 Application
 - b) Create Your First Mobile SAPUI5 Application
 - c) Develop Your First Application using SAPUI5 Tools

- d) Testing SAPUI5 Applications
- Concepts
 - a) Model View Controller (MVC)
 - b) Resource Handling
 - c) Libraries
 - d) SAPUI5 Components
 - e) Fragments
- Application Best Practice
 - a) Preparing
 - b) Building
- Initializing and Loading SAPUI5
 - a) Bootstrapping: Loading and Initializing SAPUI5 in HTML Pages
 - b) Initialization Process
 - c) Configuration of the SAPUI5 Runtime
- Models and Data Binding
 - a) Data Binding: Getting Started
 - b) Models and Data Binding in Applications
 - c) Binding Types
 - d) Using the Data Binding Type System
 - e) Calculated Fields for Data Binding
 - f) Using Data Binding for Data Export
 - g) Property Metadata Binding
- Building the UI
 - a) Instantiating Views
 - b) Implementing XML Views
 - c) Handling Events in JSON Views
 - d) Typed Views and Controllers
 - e) File Names and Locations (View and Controller)
 - f) View Cloning
 - g) Support for Unique IDs
 - h) Fragments
 - i) HTML Templating in SAPUI5
 - j) Navigation
 - k) Working with Controls in SAPUI5
 - l) Declarative Support
- Structuring SAPUI5 Applications
 - a) Modularization and Resource Handling
 - b) SAPUI5 Components
- Translating SAPUI5 Applications
 - a) Identifying the Language Code / Locale
 - b) Resource Bundles
 - c) Use of Localized Texts in Applications
 - d) Support Translation

- Component.js
 - a) Example: Component Configuration
 - b) Controller Extension
 - c) Controller Replacement
 - d) l18n Resource Text Customization
 - e) Limitations
 - f) Caveats Regarding Stability Across Application Upgrades
 - g) Supportability
- Building Mobile Applications with SAPUI5
 - a) Handling Navigation and Lifecycle Events
 - b) Adapting to Platform and Form Factors
 - c) Working with Lists and Tables
 - d) Triggering Phone, SMS and E-Mail
 - e) Scrolling in SAPUI5 Mobile
 - f) Running SAPUI5 Mobile Apps in Hybrid Web Containers
 - g) Using Images in Mobile Applications
 - h) Message Handling
 - i) Mobile Events
 - j) Performance Behavior
 - k) Building Charts with SAP VIZ
- Troubleshooting
 - a) Debugging
 - b) Logging and Tracing
 - c) Troubleshooting: Common Issues
 - d) Browser Debugging for ABAP Developers
 - e) SAPUI5 Diagnostics
 - f) SAPUI5 Mobile Diagnostics
- Testing in SAPUI5
- Developing Content for SAPUI5
 - a) Development Conventions and Guidelines
- WEB-IDE
 - a) Create a new SAPUI5 application
 - b) Development process overview
 - c) Development environment overview
 - d) Building SAP Fiori-like UIs with SAPUI5
 - e) Deploy to SAPUI5 ABAP Repository

SAP Fiori Introduction and App Development

Lesson 7: SAP Fiori

- Master Detail view in SAPUI5 Mobile
- Master Detail view in SAPUI5 Desktop
- Routing in Components
- sap.m.Table
- sap.m.app API
- sap.m.List API
- sap.m.lcontabbar API
- Fragments

Object Oriented Programming in ABAP

Lesson 8: Object Oriented Programming in ABAP

- What is Object and class?
- Why to define a class?
- Components of class
- Attributes - Instance, static, constant
- Methods- instance, static
- Role of Attributes & Methods in OOPs programming
- Defining class in class builder
- Accessing Attributes in a method
- Instantiation of object in report program
- Visibility - Public, Private, Protected
- Method parameters - importing, exporting, changing, returning
- Relationship between objects
- Association
- Aggregation
- Composition
- Realization
- Generalization
- Interface
- Abstract class
- Type casting
- Widening Casting
- Narrow Casting

SAP Netweaver Gateway Using OData Service

Lesson 9: SAP Netweaver Gateway

- Introduction NetWeaver Gateway
 - NetWeaver Gateway Usage
 - Gateway Architecture overview
 - Technical Components involved
 - Introduction to REST
 - Introduction to OData
 - OData advantages
 - Introduction to OData formats JSON and XML
 - Overview of Structure of an OData Service
 - Overview of Service Document
 - Overview of Service Metadata Document

OData Operations

Lesson 10: OData Operations

- Create
- Read
- Update
- Delete
- OData Query Options
- Filtering and Projecting (\$filter and \$select)
- Sorting (\$orderby)
- Client-Side Paging (\$top, \$skip, and \$inlinecount)
- Counting (\$count)
- Inlining (\$expand)
- Formatting (\$format)