

# Microsoft 365 - Client Side Development Fundamentals

(M365-CSDF)

ID M365-CSDF Price CHF 3,730.—(excl. VAT) Duration 5 days

#### Who should attend

This seminar is aimed at SharePoint developers who want to extend their server-side SharePoint development skills towards Microsoft 365 development including Teams programming to implement solutions for Microsoft 365 and Microsoft Teams.

#### **Prerequisites**

Good JavaScript & HTML knowledge Experience with SharePoint Development helpful

#### **Course Objectives**

Upon completion of this seminar, participants will have knowledge of the following topics:

- Introduction to Microsoft 365 Development
- Node-based Development using Visual Studio Code
- Object Oriented JavaScript & Type Script
- Introduction to Microsoft Identity
- Microsoft 365 & SharePoint Data Access using REST, CSOM, PnP/PnPjs, Graph
- Customizing & Enhancing the User-Interface using moder Web Standards and Fluent UI
- Introduction to React and using SPA Frameworks in M365 Development
- SharePoint Framework Basics (SPFx)
- Teams & Office Add-In Basics
- Provisioning & Microsoft 365 DevOps
- No-Code-Solutions using Microsoft Power Platform

#### **Course Content**

# Introduction Microsoft 365 Development

- Microsoft 365 Overview & Services
- Overview M365 Extension & Data Access Patterns
- Why Client-Side Development (JavaScript / Typescript vs C# Customizations)
- Overview PnP Framework

#### Node-based Development using Visual Studio Code

- · Using Visual Studio Code, Extensions, Add-Ins
- Understanding Node.js Role in modern Client Side Dev
- The Web Stack Pattern, Node, Gulp, Yeoman, Webpack
- Using Node Express

#### **Object Oriented JavaScript & Type Script**

- · Visual Studio Extensions & Project Configurations
- JavaScript vs TypeScript
- Types, Enums Classes, Interfaces, Functions
- ES6 Array Helpers & Utility Functions
- Async Programming & Promises
- Using 3rd Party Libraries in TypeScript
- Ensuring Browser Compatibility using Babel, Shims and Polyfills

#### **Introduction to Microsoft Identity**

- Introduction to Microsoft Identity
- Microsoft Authentication Library MSAL
- Using MSAL in Node & External SPAs

## Microsoft 365 & SharePoint Data Access

- · CSOM vs REST vs PnP Core JavaScript
- REST and OData Overview
- OData Queries and Expanding
- Implementing CRUD Operation using REST for List & List Items
- Expanding Complex Objects like Managed Metadata, Lookups, User
- Using Client-Side Object Model Context, Batching, Loading
- Implementing CRUD Operations for Lists & List Items using Net Core
- PnP/PnPjs Overview & CRUD Operations
- Introduction to Microsoft Graph, Webhooks & Connectors

#### **Customizing & Enhancing the User-Interface**

- Customize Modern UI & Modern Themes
- Understanding & Using Flexbox
- Introduction to Fluid UI

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# Introduction to React and using SPA Frameworks in M365 Development

- Introduction to React
- Use Cases for React in SharePoint Development
- Understanding React Basics in a Standalone App
- Using Context to share Data between Components
- Using Fluid UI React Controls
- Introduction to React Testing using Jest
- Using Angular as Microsoft 365 External SPA

#### **SharePoint Framework Basics (SPFx)**

- SharePoint Framework SPFx Overview
- When to use SPFx / When to use other Patterns
- Implementing SharePoint Framework Web Parts
- Exposing Properties & Data Access
- Introduction to SharePoint Framework Extension

#### Teams & Office Add-In Basics

- Microsoft Teams Introduction
- Overview Teams Extension Options
- SPFx & External SPAs as Teams Tabs
- Office Add-In Introduction
- Scaffolding & Implementing an Outlook React Add-In

### **Provisioning & Microsoft 365 DevOps**

- Introduction to SharePoint & Teams Provisioning
- Deployment Options for SPFx, Teams & Single Page Applications
- Introduction to DevOps using Microsoft 365 CLI
- Building & Deploying a SPFx Teams Tab using Azure DevOps

### No-Code-Solutions using Microsoft Power Platform

- The Power Platform
- Introduction to Microsoft Power Apps
- Introduction to Microsoft Flow

# Microsoft 365 - Client Side Development Fundamentals (M365-CSDF)

# **Training Centres worldwide**





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