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

ID M365-CSDF   **Price** 3,090.— €(excl. tax)   **Duration** 5 days

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Course Overview

Due to the increasing importance of client-side technologies, many SharePoint developers are faced with the challenge of having to expand their skillset in the direction of open source tooling such as Glup, Node.js, but also Singe Page Application Frameworks (SPA) such as React, in order to be prepared for Microsoft 365 development.

This workshop assumes that you have basic knowledge as a web developer (HTML/JavaScript) and offers you the opportunity to learn the foundation for Microsoft 365, Teams and Office Add-In Development in a compact form. The knowledge acquired here can be used in Microsoft 365. They are the basis for an in-depth study in the direction of TEAMS Development, as well as MS-600 Building Applications and Solutions with Microsoft 365 Core Services.

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

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

About Fast Lane

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