

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

**ID** M365-CSDF **Preis** CHF 3'730.– (exkl. MwSt.) **Dauer** 5 Tage

## Zielgruppe

Dieses Seminar richtet sich an SharePoint Entwickler welche Ihre serverseitigen SharePoint Entwicklerkenntnisse in Richtung Microsoft 365 Development inklusive Teams Programmierung erweitern möchten umso Lösungen für Microsoft 365 und Microsoft Teams zu implementieren.

## Voraussetzungen

- Gute JavaScript & HTML Kenntnisse
- Erfahrung mit SharePoint Development hilfreich

## Kursziele

Nach Abschluss dieses Seminars haben die Teilnehmer Wissen zu folgenden Themen:

- Introduction to Microsoft 365 Development
- Node-based Development using Visual Studio Code
- Object Oriented JavaScript & Type Script
- Introduction to React for M365 Development
- Using Microsoft Identity
- Microsoft 365 & SharePoint Data Access using REST, CSOM, PnP/PnPjs
- Microsoft Graph und Graph Toolkit
- Customizing & Enhancing the User-Interface using Fluent UI
- Using AppServices and Azure Functions in Microsoft 365 Development
- SharePoint Framework Basics (SPFx)
- Provisioning & Microsoft 365 DevOps

## Kursinhalt

### Introduction Microsoft 365 Development

- Microsoft 365 Overview & Services
- Overview Microsoft 365 Apps & Extension Patterns
- Overview PnP Framework

### Node-based Development using Visual Studio Code

- Using Visual Studio Code, Extensions & Quickwins
- Understanding Node.js Role in modern Client Side Dev
- The Web Stack Pattern, Node, Gulp, Yeoman, Webpack
- Exposing Local Apps using ngrok

### Object Oriented JavaScript & Type Script

- JavaScript vs TypeScript
- Object Orientation, Classes, Constructor Functions
- Immutability, Pure Functions and Object Cloning
- ES6 Array Helpers & Utility Functions (Destructuring assignments, Spread, ...)
- REST, Http Verbs, fetch and axios
- Promises & Async Await

### Introduction to React for M365 Development

- Introduction to React
- Use Cases for React in SharePoint Development
- Understanding React Basics in a Standalone App
- Classes vs Functional Components
- Implementing Class based Components
- Implementing Functional Components
- Using Hooks: useState, useEffect, useCallback
- React CRUD (Create - Read - Update - Delete)
- Using Context to share Data between Components
- Using Fluid UI React Controls
- Introduction to React Testing using Jest

### Using Microsoft Identity

- Introduction to Microsoft Identity
- App Registrations
- Token Based Authentication
- Microsoft Authentication Library - MSAL Getting Started

### Microsoft 365 & SharePoint Data Access

- Introduction to SharePoint Object Hierarchy
- PnP Core SDK vs REST vs PnP JavaScript
- SharePoint REST Api V1 & V2 Getting Started
- Implementing CRUD Operation using REST for List & List Items

- OData Queries and Expanding
- PnP/PnPs Overview & CRUD Operations
- Introduction to PnP Core SDK for .NET
- Implementing CRUD Operations for Lists & List Items using PnP Core SDK
- Expanding Complex Objects like Managed Metadata, Lookups, User

- Introduction to Yaml
- Deployment Options for SPFx & Azure Hosted SharePoint Apps
- Building & Deploying SharePoint Framework (SPFx) Extensions
- Building & Deploying Azure Functions

## Introduction to Microsoft Graph & Graph Toolkit

- Introduction to Microsoft Graph
- Managing Events, Calendar, Mail using Graph
- Using Graph's SharePoint Rest Api V2
- Introduction to the MS Graph Toolkit

## Using AppServices and Azure Functions in Microsoft 365 Development

- Introduction to Azure App Services & Azure Functions
- Implementing External Apps using React and MS Graph Toolkit
- SharePoint Remote Event Handling Options
- Implementing Remote Event Handling & Webhooks using Azure Functions
- Collecting SharePoint List Notifications using Azure Event Grid
- Timer Jobs using Azure Functions

## Customizing & Enhancing the User-Interface

- Customize Modern UI & Modern Themes
- Site Designs
- List & View Formatting
- Using Site Scripts

## SharePoint Framework Basics (SPFx)

- SharePoint Framework SPFx Overview
- When to use SPFx / When to use other Patterns
- Implementing SharePoint Framework Web Parts
- SharePoint Framework Data Access using REST and PnPJS
- Introduction to SharePoint Framework Extension

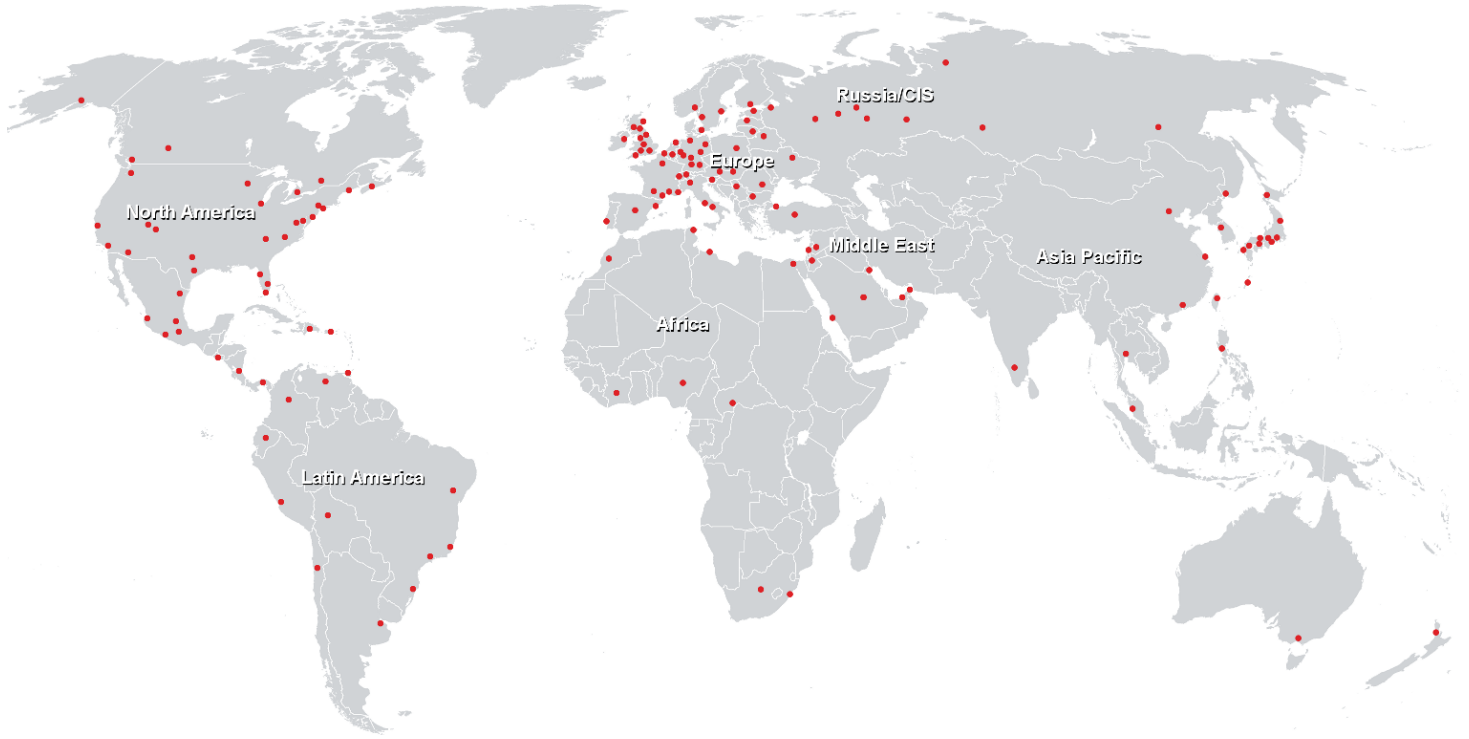
## SharePoint Site Provisioning

- Using the PnP Framework for Provisioning
- Provisioning SharePoint Sites using Site Designs & Scripts

## Microsoft 365 DevOps

- Microsoft 365 DevOps Overview
- Using the Microsoft 365 CLI
- Azure DevOps Pipelines Quickstart

**Weltweite Trainingscenter**



**Fast Lane Institute for Knowledge Transfer GmbH**

Husacherstrasse 3  
CH-8304 Wallisellen  
Tel. +41 44 832 50 80

[info@flane.ch](mailto:info@flane.ch), <https://www.flane.ch>