

SharePoint Online and PowerShell

Duration : 7 days

Overview

This course delivers an instructor-led breakdown of SharePoint Online, SPFx and PowerShell as well as a showcase for SPO, SPFx and PowerShell from start to finish in an engaging and practical way

This course will cover below topics

- ✓ SharePoint Online
- ✓ Provider Hosted Add in / Azure Based Provider Hosted Apps
- ✓ Client-side Object Model (CSOM)
- ✓ SPFx Webparts
- ✓ SPFx Extension
- ✓ SPFx Library
- ✓ PnP SPFx controls
- ✓ PnP SPFx generator
- ✓ Fluent UI for React
- ✓ React for SPFx
- ✓ TypeScript for SPFx
- ✓ Router and Redux
- ✓ Microsoft Teams Integration

Course Outline:

Module 1: SharePoint Online

- Getting Started with SharePoint Online for Office 365
 - Course Overview
 - History of SharePoint Development
 - Introduction of SharePoint and Office 365
- Setup SharePoint online environment
- Modern SharePoint
- Working with Modern Team Sites & Communication Sites
- Working with Libraries Apps
- Working with List Apps
- Working with Content Types and Site columns
- Working with Pages
- Using View functionalities
- Working with Out of Box Webparts
- Working with SharePoint Permissions
- Working with User Profiles and Search
- Demo and Hands-on

Module 2: SharePoint Online Branding

- Walkthrough Branding for SharePoint Online
- Site Design & Site Scripts
- Working with SharePoint Hub Sites
- Term Store
- Demo and Hands-on

Module 3: SharePoint Framework Overview

This module explains the development options we have in SharePoint. It gives an overview of the toolchain of SharePoint Framework and how it fits into the SharePoint development story.

- ✓ What is SharePoint Framework
- ✓ Why SharePoint Framework?
- ✓ Modern toolchain

Module 4: Preparing your machine for the SharePoint Framework

This module explains how to prepare your machine for SharePoint Framework development. Configuring your SharePoint environment for development and deployment is also discussed.

- ✓ Setup Office 365
- ✓ Visual Studio Code
- ✓ Node.js/NPM – local hosting and module management
- ✓ Yeoman – project scaffolding
- ✓ Gulp – task runner

Lab: Preparing your machine for the SharePoint Framework

- ✓ Set up your development machine

Module 5: Node.js Modules

This module explains how a node.js project is structured, explains the role of the different components contained within and how to scaffold a project from scratch. It illustrates the different kind of modules you have and how to work with them, i.e., installing, versioning, locking down, caching.

- ✓ Setup a node.js project using npm
- ✓ Modules
- ✓ Creating a Project
- ✓ Using Modules
- ✓ Common JS
- ✓ Important Modules

Module 6: TypeScript

This module explains how Typescript solves many of the problems discussed in the previous modules. TypeScript adds type annotations and code compilation to your development process so that you write better code. TypeScript is used by default in all SharePoint Framework generated projects. This module will discuss the TypeScript language and how it can help you in building your enterprise scale applications.

- ✓ What is TypeScript
- ✓ Using TypeScript in your project
- ✓ Variables
- ✓ Functions
- ✓ Interfaces and Classes
- ✓ Modules and Namespaces

Lab: Creating a project with TypeScript

- ✓ Creating the model classes
- ✓ Providing dummy data
- ✓ Using an external library

Module 7: SharePoint Framework Client Web Parts

This module explains how to use the Yeoman generator to create a SharePoint Framework project. It will illustrate the structure of a SharePoint Framework project. This module introduces client-side web parts and how to make basic changes to it. It also introduces the local and online Workbench, where your web parts can be tested.

- ✓ Framework Client Web Parts
- ✓ What is a Client Web Part?
- ✓ Creating a project
- ✓ Exploring Project Contents
- ✓ Running Your Project
- ✓ Gulp tasks
- ✓ Web Part Configuration

Lab: Create a SharePoint Framework Web Part

- ✓ Create a SharePoint client-side solution
- ✓ Take a look at the generated project
- ✓ Modify the properties and the property pane
- ✓ Modify the web part

Test on SharePoint

Module 8: Client Web Part Properties

This module explains how to modify the property pane of your web part. It explains how to configure and use your own properties. It discusses how to dynamically load property pane options, create custom property controls, validate property values.

- ✓ Client Web Part Properties
- ✓ Webpart Properties
- ✓ Adding Properties
- ✓ Using Properties
- ✓ Preconfigured Entries
- ✓ Dynamic Data
- ✓ Custom Properties
- ✓ Advanced Configuration

Lab: Create a Web Part with all Properties

Module 9: React JS Essentials

This module will cover the basics of the JavaScript framework React. It discusses how the React component system works, and how to use it inside your SharePoint Framework projects.

- ✓ What is React JS
- ✓ Model View View Model (MVVM)
- ✓ React Components
- ✓ What is JSX
- ✓ Html Tags vs React Components
- ✓ Creating Components
- ✓ JavaScript Expressions
- ✓ JSX Gotchas
- ✓ Relationship with State Machines
- ✓ Handling Component State
- ✓ Adding Interactivity by means of events
- ✓ Using Multiple Components
- ✓ Transferring props between components

- ✓ The Lifecycle of a Component
- ✓ Alternative Syntax
- ✓ SharePoint Framework and React

Lab:

- ✓ Create a SPFx webpart with react
- ✓ Create a react SPFx webpart with all Properties

Module 10: Loading SharePoint Data in a client web part

This module explains how to load data in your SharePoint Framework components using the utility classes. The module discusses the SharePoint REST API and how to consume it. Consume your own API and handling cross-origin issues.

- ✓ Loading SharePoint data
- ✓ Page Context
- ✓ Web Services Overview
- ✓ REST and ODATA Fundamentals
- ✓ SharePoint REST API's
- ✓ Framework HTTP Client
- ✓ Fluent UI React Controls

Lab: Loading SharePoint data in a client-side web part

- ✓ Configuring the web part properties
- ✓ Loading SharePoint lists with a Data Service and Mock Service
- ✓ Testing in the local/online workbench
- ✓ Loading items for the selected list

Module 11: Single Page Application (SPA) React JS

This module will cover how to create a single page application using React JS

- ✓ Routing components
- ✓ Applying Routing
- ✓ Router implementation
- ✓ Routing concerns
- ✓ Advanced Routing
- ✓ React state management libraries
- ✓ Redux overview
- ✓ Implementing Redux

Lab: Create a SPFx with routing and Redux

Module 12: PnP Controls

This module explains how you can use your SharePoint Framework solutions use PnP controls and provisioning options to your SharePoint site

- ✓ Reusable React controls for your SharePoint Framework solutions
- ✓ Cover all controls and usage

Lab: Create a SPFx webpart with PnP controls

Module 13: Deploying SharePoint Artifacts

This module explains how you can use your SharePoint Framework solutions to provision SharePoint artifacts, like fields, content types, lists to your SharePoint site.

- ✓ Deploying SharePoint Artifacts to app Catalog
- ✓ Deployment Options
- ✓ Asset Types
- ✓ Features
- ✓ SPFx Development with AWS Environment (VM)
- ✓ CI/CD with SharePoint Framework and Azure Devops
- ✓ Connected SPFx Webparts (Pass Data Between Web Parts)

Lab: Deploy SharePoint webpart with assets and features

- ✓ Tenant Level appcatalog
- ✓ Site Collection level appcatalog
- ✓ Office 365 CDN setup
- ✓ Azure CDN setup
- ✓ SPFx Development with AWS Environment (VM)
- ✓ CI/CD with SharePoint Framework and Azure Devops
- ✓ Connected SPFx Webparts (Pass Data Between Web Parts)

Module 14: SharePoint Framework Extensions

This module explains how to build UI extension for your SharePoint site by means of extensions. It will discuss altering the header/footer of a site with application customizers, creating field customizers to change the rendering of a field and how to use command sets to provide your own command bar buttons.

- ✓ SharePoint Framework Extensions
- ✓ Extensions Overview
- ✓ Creating Extensions
- ✓ Application Customizers
- ✓ Creating an application customizer
- ✓ Creating a field customizer
- ✓ Creating a command set
- ✓ Creating a Library

Lab: Extensions

- ✓ Create an application customizer extension
- ✓ Create a Field customizer extension
- ✓ Create a command set extension
- ✓ Create a Library component for SPFx webpart

Module 15: Microsoft Teams tabs using SharePoint Framework

- ✓ Create a Microsoft Teams tab project
- ✓ Packaging and deploying your web part to SharePoint
- ✓ Making the web part available in Microsoft Teams

Lab: Building Microsoft Teams tab using SharePoint Framework

- ✓ Making the web part available in Microsoft Teams
- ✓ Build and deploy multi-tab Microsoft Teams personal tab using SharePoint Framework(SPFx)

Module 15: Provider Hosted Add in / Azure Based Provider Hosted Apps

There are two basic kinds of SharePoint Add-ins: SharePoint-hosted and provider-hosted.

- ✓ Overview
- ✓ Provider-hosted add-ins
- ✓ SharePoint hosted Add-ins
- ✓ Client-Side Object Model (CSOM)
- ✓ Set up your dev environment
- ✓ Create the add-in project
- ✓ Code your add-in