

# Developing with the SharePoint Framework

**Duration: 40 Hours (5 Days)**

## Overview

Developing with the SharePoint Framework certification validates proficiency in using SharePoint Framework (SPFx), a Page and web part model for building SharePoint experiences. It's leveraged by industries because it allows comprehensive SharePoint customization, ensuring seamless user experiences with familiar tools like React and TypeScript. This certification demonstrates you can create, deploy, and optimize SPFx solutions, including Client-side web parts, extensions, and third-party integrations. It emphasizes concepts such as the SPFx development environment setup, SharePoint REST APIs, and deployment to a CDN. By getting certified, developers validate their expertise, robust SPFx skills, and enthusiasm for staying current with evolving SharePoint technologies.

## Audience Profile

SharePoint developers aiming to enhance their skill set. • IT professionals focused on collaborative business solutions.

- Individuals wishing to learn about SharePoint Framework (SPFx).
- Companies seeking to improve their SharePoint customization.
- Front-end developers wanting to work with SharePoint.
- Team leaders managing SharePoint projects.
- Web developers interested in Microsoft technologies.
- Note: The text inside bullet points is not needed to be maintained within 40-50 words as per the typical formatting of bullet point information.

## Course Syllabus

**Prerequisites: HTML, CSS, JavaScript and Basics of React**

### Module 1: SharePoint Framework

- Why SharePoint Framework?
- Modern toolchain
- The Future
- More Info

### Module 2: Preparing your machine

- Setup Office 365
- Software Installation

### Module 3: Modules

- Creating a Project
- Using Modules
- CommonJSs
- Important Modules

## Module 4: Framework Client Web Parts

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

## Module 5: TypeScript

- What is TypeScript
- Usage
- Language
- Variables
- Functions
- Interfaces and Classes
- Promises and Async/Await
- Other Features
- Modules
- Summary

## Module 6: Client Web Part Properties

- Webpart Properties
- Adding Properties
- Using Properties
- Preconfigured Entries
- Dynamic Data
- Custom Properties
- Advanced Configuration

## Module 7: Loading SharePoint Data

- Page Context
- Web Services Overview
- REST and ODATA Fundamentals
- SharePoint REST API's
- AJAX
- Default Http Client
- Default SharePoint Http Client
- Checking the environment
- List Subscriptions

## Module 8: Loading Libraries and/or Frameworks

- Considerations
- NPM Package
- Loading from a URL
- Loading A Local Copy

- Loading jQuery and plugins
- Component loader
- Conclusion

## Module 9: Build and Deploy a Framework solution

- Overview
- Bundling
- Packaging
- Deployment
- Site Specific App Catalog
- Deploying Assets
- Features
- Versioning
- Deploy to Microsoft Teams

## Module 10: SASS

- What is SASS?
- The Language
- Variables
- Types
- Comments
- Nested Rules and Properties
- Partials
- Extend
- Mixins
- Functions

## Module 11: Office UI Fabric

- What Is Office UI Fabric?
- Office UI Fabric Versions
- Fabric Core Styles
- Example Uses
- Fabric Components
- Fabric JS
- ngOfficeUIFabric
- Fabric React

## Module 12: Consuming AAD secured API's

- Introduction to Microsoft Graph
- Microsoft Graph API
- Consuming the Microsoft Graph API
- Registering application in Azure AD
- API Permissions
- Consuming AAD protected API's
- Security Guidance
- Domain Isolated Web Part

- Security Control
- Summary

## **Module 13: SharePoint Framework Extensions**

- Extensions Overview
- Creating Extensions
- Application Customizers
- Field Customizers
- Command Sets
- Extension Deployment

## **Module 14: Dynamic Data**

- Introduction
- Exposing data
- Consuming data
- Dynamic Data From Code
- Advanced Configuration
- Summary