

## PL-400 Microsoft Power Platform Developer (5 Days)

### Overview

The Microsoft Power Platform helps organizations optimize their operations by simplifying, automating and transforming business tasks and processes. In this course, students will learn how to build Power Apps, Automate Flows and extend the platform to complete business requirements and solve complex business problems.

### Audience profile

Candidates for this course design, develop, secure, and troubleshoot Power Platform solutions. Candidates implement components of a solution that include application enhancements, custom user experience, system integrations, data conversions, custom process automation, and custom visualizations. Candidates will gain applied knowledge of Power Platform services, including in-depth understanding of capabilities, boundaries, and constraints. Candidates should have development experience that includes JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI.

### Skills gained

- Create a technical design
- Configure Common Data Service
- Create and configure Power Apps
- Configure business process automation
- Extend the user experience
- Extend the platform
- Develop Integrations

### Prerequisites

- Candidates should have an introductory knowledge of Power Platform
- Candidates should have development experience that includes JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI

## Course Outline

### Module 1: Create a model-driven application in Power Apps

- Introduction to model-driven apps and Common Data Service
- Get started with model-driven apps in Power Apps
- Create and manage entities in Common Data Service
- Create and manage fields within an entity in Common Data Service
- Working with option sets in Common Data Service
- Create a relationship between entities in Common Data Service
- Define and create business rules in Common Data Service
- Create and define calculation or rollup fields in Common Data Service
- Get started with security roles in Common Data Service

### Module 2: Create a canvas app in Power Apps

- Get started with Power Apps
- Customize a canvas app in Power Apps
- Manage apps in Power Apps
- Navigation in a canvas app in Power Apps
- How to build the UI in a canvas app in Power Apps
- Use and understand Controls in a canvas app in Power Apps
- Document and test your Power Apps application

### Module 3: Master advance techniques and data options in canvas apps

- Use imperative development techniques for canvas apps in Power Apps
- Author an advanced formula that uses tables, records, and collections in a canvas app in Power Apps
- Perform custom updates in a Power Apps canvas app
- Complete testing and performance checks in a Power Apps canvas app
- Work with relational data in a Power Apps canvas app
- Work with data source limits (delegation limits) in a Power Apps canvas app
- Connecting to other data in a Power Apps canvas app
- Use custom connectors in a Power Apps canvas app

### Module 4: Automate a business process using Power Automate

- Get started with Power Automate
- Build more complex flows with Power Automate
- Introduction to business process flows in Power Automate
- Create an immersive business process flow in Power Automate
- Understand advanced business process flow concepts in Power Automate
- Introduction to expressions in Power Automate

**Module 5: Introduction to developing with Power Platform**

- Introduction to Power Platform developer resources
- Use developer tools to extend the Power Platform
- Introduction to extending the Microsoft Power Platform

**Module 6: Extending the Power Platform Common Data Service**

- Introduction to Common Data Service for developers
- Extend plug-ins

**Module 7: Extending the Power Platform user experience Model Driven apps**

- Introduction to web resources
- Performing common actions with client script
- Automate business process flows with client script

**Module 8: Create components with Power Apps Component Framework**

- Get started with Power Apps component framework
- Build a Power Apps component
- Use advanced features with Power Apps component framework

**Module 9: Extend Power Apps portals**

- Introduction to Power Apps portals
- Access Common Data Service in Power Apps portals
- Extend Power Apps portals
- Build custom Power Apps portals web templates

**Module 10: Integrate with Power Platform and Common Data Service**

- Work with Common Data Service Web API
- Integrate Common Data Service Azure solutions