

Microsoft Power Platform Developer (PL-400T00)

Duration: 5 days

Audience: Professionnel TI

Who is this training for?

Candidates for this course design, develop, secure, and troubleshoot Power Platform solutions.

Candidates implement the components of a solution that includes application enhancements, personalized user experience, system integrations, data conversions, custom process automation, and custom visualizations. Candidates will gain an applied knowledge of Power Platform services, including a thorough understanding of capabilities, limitations, and constraints. Applicants should have development experience including JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI

Training objectives

- 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

Summary

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 powerful applications, automate workflows, and extend the platform to meet business needs and solve complex business problems.

Course outline

Module 1: Create a model-based app in Power Apps

This module introduces you to creating a model-based app in Power Apps that uses Common Data Service.

Lessons

- Introduction to model-based apps and Common Data Service
- Get started with model-based apps in Power Apps
- Create and manage entities in Common Data Service
- Create and manage fields within an entity in Common Data Service
- Work with options 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 summary fields in Common Data Service
- Get started with security roles in Common Data Service

Module 2: Create a canvas app in Power Apps

This module introduces you to Power Apps, helps you create and customize an app, and then manage and distribute it. It will also show you how to provide the best in-app navigation and build the best UI using themes, icons, images, customization, different form factors, and controls.

Lessons

Get started with Power Apps • Customize a canvas app in Power Apps

- Manage apps in Power Apps
- Navigate a canvas app in Power Apps
- How to build the UI in a canvas app in Power Apps
- Use and understand the controls in a canvas app in Power Apps
- Document and test your Power Apps app

Module 3: Master advanced techniques and data options in canvas apps

This module will help you use advanced formulas, perform custom updates, performance checks, and tests. It will also help you improve the user experience, use custom connectors, and focus on working with data source limitations.

Lessons

- Use imperative development techniques for canvas apps in Power Apps
- Create an advanced formula that uses tables, records, and collections in a canvas app in Power Apps
- Make custom updates in a Power Apps canvas app
- Perform performance testing and checks in a Power Apps canvas app
- Work with relational data in an app of the Power Apps canvas
- Work with data source limits (delegation limits) in a Power Apps canvas app
- Connect 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

This module introduces you to Power Automate, teaches you how to create workflows and manage them.

Lessons

- 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

This module is the first step in learning the platform, Power Platform Tools and Ecosystem Lessons

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Introduction to Power Platform developer resources

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

Module 6: Extending Power Platform Common Data Service

This module examines the tools and resources needed to extend Power Platform. We'll start by looking at the SDKs, the extensibility model, and the framework of the event. This learning path also covers when to use the plug-ins. Plug-in configuration and plug-in registration and deployment.

Lessons

- Introduction to Common Data Service for Developers
- Extending Plug-ins

Module 7: Extending the Power Platform User Experience Model-driven apps

This module describes how to create a client script, perform common actions with the client script, and automate the flow of business processes with the client script. Learn what client scripting can do, rules, and script maintenance. Learn when to use the client script and when not to use it.

Lessons

- Introduction to web resources
- Performing common actions with the client script
- Automating business process flows with a client script

Module 8: Create components with the Power Apps Component Framework

This module describes how to get started with the Power Apps Component Framework with an introductory module on basic concepts and components. It then shows you how to build a component and work with the advanced features of the Power Apps Component Framework.

Lessons

- Get started with the Power Apps Components Framework

- Create a Power Apps component
- Use advanced features with the Power Apps Components Framework

Module 9: Extend Power Apps portals

This module describes how to transform a content portal into a full-featured web application that interacts with Common Data Service. We'll also discuss options for customizers and developers to extend the portal's functionality and integrate it with Office 365, Power Platform, and Azure components.

Lessons

- Introduction to Power Apps portals
- Access Common Data Service in Power Apps portals
- Extend Power Apps portals
- Create custom web portal templates for Power Apps

Module 10: Integration with Power Platform and Common Data Service

This module describes how to integrate Common Data Service using code by familiarizing yourself with the Common Data Service API. Get an in-depth overview of the options available with Common Data Service to integrate data and events with Azure.

Lessons

- Working with Common Data Service
- Web API Integrating Azure Common Data Service Solutions

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants gradually develop solutions with Microsoft Power Platform as developers through real-world exercises inspired by professional scenarios, promoting immediate application of learnings. They learn how to extend the platform, integrate services, automate processes, and build robust applications that meet advanced needs. Led by a Microsoft certified trainer, the training focuses on interactivity and the

development of directly transferable technical skills to design and develop customized solutions in a professional context.

Prerequisites

Applicants should have a basic knowledge of Power Platform. Applicants should have development experience in JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI

Recommendations

- Proficiency in the basics of the Power Platform (PL-900 recommended)
- Experience in software development (JavaScript, C#, or equivalent)
- Knowledge of application development concepts and APIs (REST, integration)
- Familiarity with Dataverse and data modeling
- Understanding of business processes and their automation
- Notions of Azure and Microsoft cloud services (asset)