MICROSOFT POWER PLATFORM DEVELOPER (PL-400T00)

Course Code: 100997

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 design, develop, test, and troubleshoot solution components that use the extension points of Microsoft Power Platform. You use traditional code to solve challenges not appropriate with low-code.

What You'll Learn

Students will learn,

- Use imperative development techniques for canvas apps in Power Apps
- Perform custom updates in a Power Apps canvas app
- Use Dataverse choice columns with formulas
- Reduce complexity in your data model with Dataverse table relationships
- Work with relational data in a Power Apps canvas app
- Work with data source limits (delegation limits) in a Power Apps canvas app
- Complete testing and performance checks in a Power Apps canvas app
- Optimize app load time
- Use Monitor to troubleshoot Power Apps
- Use Power Apps Instrumentation with Application Insights
- Get started with Power Automate
- Introduction to expressions in Power Automate
- Use Dataverse triggers and actions in Power Automate
- Introduction to Microsoft Power Platform developer resources
- Use developer tools to extend Power Platform
- Introduction to extending Power Platform
- Work with Dataverse Web API

- Perform common actions with client script in Power Platform
- Automate business process flows with client script
- Get started with Power Apps component framework
- Build a Power Apps component
- Introduction to Dataverse for developers
- Extend plug-ins in Power Platform
- Integrate Dataverse Azure solutions
- Explore Azure Functions
- Develop Azure Functions
- Get started with custom connectors in Microsoft Power Platform
- Discover and use Web APIs with Power Apps
- Configure custom connectors with authenticated APIs in Microsoft Power Platform
- Configure policy templates for custom connectors in Microsoft Power Platform
- Create Microsoft Power Platform OpenAPI custom connectors
- Manage solutions in Power Apps and Power Automate
- Introduction to solutions for Microsoft Power Platform

Who Needs to Attend

As a training attendee you must have previous software developer experience using code techniques with modern programming languages such as C# and JavaScript. You must also have a foundational understanding of Microsoft Power Platform and have hands-on experience with the following: - Developing a data model in Microsoft Dataverse - Creating tables, columns, and relationships in Microsoft Dataverse - Building Power Apps canvas apps - Building Power Apps model-driven apps - Building Power Automate cloud flows In this course you will learn to build solutions using Visual Studio and Visual Studio Code that include the following: Microsoft Power Platform services, JavaScript, JSON, TypeScript, C#, HTML, RESTful Web APIs, and Microsoft Azure.

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CLASSROOM LIVE	$2,995 USD	5 Day

Classroom Live Outline

Module 1 : Use imperative development techniques for canvas apps in Power Apps

- Understand imperative vs. declarative development.
- Understand the variables in Power Apps.
- Understand when to utilize each of the three different types of variables.

Module 2 : Perform custom updates in a Power Apps canvas app

- Use the Patch function to update your data.
- Understand how the Defaults function is used to create new records with Patch.
- Use the Remove and RemoveIf functions to delete records.
- Determine whether to use Clear and Collect or ClearCollect in their scenario.

Module 3 : Use Dataverse choice columns with formulas

- Discover the Choice field basics.
- Learn when to use choice or lookups.
- Filter data on choice values.

Module 4 : Reduce complexity in your data model with Dataverse table relationships

- Discover various Microsoft Dataverse relationship types.
- Learn how to use one-to-many relationships.
- Learn how to use many-to-many relationships.

Module 5 : Work with relational data in a Power Apps canvas app

- Understand relational data
- Use relational data to improve an app user's experience in Power Apps
- Understand how to use relational data in Microsoft Dataverse

Module 6 : Work with data source limits (delegation limits) in a Power Apps canvas app

- Understand the different limits of different data sources

- Understand how functions, predicates, and operators all play roles in the limits
- Use this new understanding to choose the best data source for an app

Module 7 : Complete testing and performance checks in a Power Apps canvas app

- Use best practices to improve the performance of your app.
- Understand how to best test an app.
- Use fiddler for troubleshooting.

Module 8 : Optimize app load time

- Evaluate your app startup performance.
- Optimize OnStart app load time.
- Implement a data load strategy.

Module 9 : Use Monitor to troubleshoot Power Apps

- Identify common problems when working with Power Apps and how to troubleshoot by using Monitor.
- Collaborate remotely.
- Interpret events logged.
- Use trace to log custom events.

Module 10 : Use Power Apps Instrumentation with Application Insights

- Set up your Power Apps canvas app for Application Insights.
- Evaluate analytics and app usage in Application Insights.
- Log custom events to Application Insights.

Module 11 : Get started with Power Automate

- Create a flow that automatically saves email attachments.
- Learn how to create a button flow to send yourself a reminder.

Module 12 : Introduction to expressions in Power Automate

- Use one or more functions to create expressions.
- Use functions to retrieve data, change data, evaluate data, and more.

Module 13 : Use Dataverse triggers and actions in Power Automate

- Dataverse triggers and actions in Power Automate.
- Other available inputs.

Module 14 : Introduction to Microsoft Power Platform developer resources

- Explain what solution components exist within Microsoft Power Platform.
- Explain key components of Microsoft Dataverse and the Common Data Model.
- Explain what Azure solution elements relate to Microsoft Power Platform.
- Explain what AI Solutions exist as it relates to Microsoft Power Platform.
- Navigate the Developer Guide successfully in support of their Microsoft Power Platform development efforts.

Module 15 : Use developer tools to extend Power Platform

- Install NuGet packages available for Microsoft Power Platform development
- Work with the Configuration Migration tool
- Work with Package Deployer
- Leverage Solution Packager to isolate features

- Run the Plugin Registration Tool

Module 16 : Introduction to extending Power Platform
- Identify which elements architecturally comprise Microsoft Power Platform.
- Learn about the areas of extensibility that are available to customize Microsoft Power Platform through code.
- Discover different approaches to common business scenarios in respect to achieving extensibility with configuration versus code.

Module 17 : Work with Dataverse Web API
- Authorize against Dataverse with OAuth.
- Use OData to query data.

Module 18 : Perform common actions with client script in Power Platform
- Write client scripts to perform common actions as listed in the module units.

Module 19 : Automate business process flows with client script
- Automate business processes using JavaScript/TypeScript API methods.

Module 20 : Get started with Power Apps component framework
- Power Apps component framework architecture
- Power Apps component tooling

Module 21 : Build a Power Apps component
- Create a custom Power Apps component.
- Create a code component solution package.
- Test and debug a code component.
- Learn key concepts of Dataverse auditing

Module 22 : Introduction to Dataverse for developers
- Explain what functions can be executed against Microsoft Power Platform via Microsoft Power Platform SDKs.
- Perform basic operations against Microsoft Power Platform such as create/read/update/delete operations

Module 23 : Extend plug-ins in Power Platform
- Learn how to extend plug-ins.

Module 24 : Integrate Dataverse Azure solutions
- Publish Dataverse events to Microsoft Azure Service Bus.
- Write a Service Bus Event Listener that consumes Dataverse events.

Module 25 : Explore Azure Functions
- Explain functional differences between Azure Functions, Azure Logic Apps, and WebJobs
- Describe Azure Functions hosting plan options
- Describe how Azure Functions scale to meet business needs

Module 26 : Develop Azure Functions
- Explain the key components of a function and how they are structured
- Create triggers and bindings to control when a function runs and where the

output is directed
- Connect a function to services in Azure
- Create a function by using Visual Studio Code and the Azure Functions Core Tools

Module 27 : Get started with custom connectors in Microsoft Power Platform

- Learn about the role of custom connectors.
- Build a connector and use it in a Power Automate flow.

Module 28 : Discover and use Web APIs with Power Apps

- Create a custom connector using Visual Studio
- Create a custom connector using Azure API Management
- Create a custom connector using an OpenAPI document
- Use a custom connector in a Power Apps app to call a web API

Module 29 : Configure custom connectors with authenticated APIs in Microsoft Power Platform

- Learn about authentication options.
- Learn how to use APIs with Microsoft Entra ID.
- Use a graph API from a custom connector.
- Share and move between environments.

Module 30 : Configure policy templates for custom connectors in Microsoft Power Platform

- Discover how policies can modify the behavior of custom connectors at runtime.
- Apply policy templates to a custom connector.

Module 31 : Create Microsoft Power Platform OpenAPI custom connectors

- Learn about OpenAPI extensions.
- Use OpenAPI extensions.

Module 32 : Manage solutions in Power Apps and Power Automate

- Package existing items into a solution.
- Create solutions.
- Edit existing solution-aware apps, flows in a solution.
- Import and export solutions.
- Deploy complex solutions with many components.
- Learn about component dependency on other components.

Module 33 : Introduction to solutions for Microsoft Power Platform

- Learn about solutions and how they work.
- Discover the concept of solution layering.
- Learn about version control for solutions.

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Jul 7 - 11, 2025 | 12:00 - 8:00 PM EDT

Aug 11 - 15, 2025 | 9:00 AM - 5:00 PM EDT

Sep 29 - Oct 3, 2025 | 9:00 AM - 5:00 PM EDT

Oct 6 - 10, 2025 | 12:00 - 8:00 PM EDT

Oct 27 - 31, 2025 | 9:00 AM - 5:00 PM EDT

Nov 3 - 7, 2025 | 9:00 AM - 5:00 PM EST

Dec 8 - 12, 2025 | 12:00 - 8:00 PM EST

Dec 15 - 19, 2025 | 9:00 AM - 5:00 PM EST

Jan 12 - 16, 2026 | 9:00 AM - 5:00 PM EST

Feb 23 - 27, 2026 | 9:00 AM - 5:00 PM EST

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PRIVATE GROUP TRAINING	5 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.