

## MS-PL200T00: MICROSOFT POWER PLATFORM FUNCTIONAL CONSULTANT

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	CERTIFICATION
5 Days	Intermediate	Power Platform	Instructor-led	PL-200 Exam

### INTRODUCTION

This course will teach you to use Microsoft Power Platform solutions to simplify, automate, and empower business processes for organizations in the role of a Functional Consultant. A Microsoft Power Platform Functional Consultant is responsible for creating and configuring apps, automations, and solutions. They act as the liaison between users and the implementation team. The functional consultant promotes utilization of solutions within an organization. The functional consultant may perform discovery, engage subject matter experts and stakeholders, capture requirements, and map requirements to features. They implement components of a solution including application enhancements, custom user experiences, system integrations, data conversions, custom process automation, and simple visualizations. This course may contain a 1-day Applied Workshop. This workshop will allow you to practice your Functional Consultant skills by creating an end-to-end solution to solve a problem for a fictitious company. The solution will include a Microsoft Dataverse database, Power Apps canvas app, and Power Automate flows.

### AUDIENCE PROFILE

A Microsoft Power Platform Functional Consultant is responsible for creating and configuring apps, automations, and solutions. They act as the liaison between users and the implementation team. The functional consultant promotes utilization of solutions within an organization. The functional consultant may perform discovery, engage subject matter experts and stakeholders, capture requirements, and map requirements to features. They implement components of a solution including application enhancements, custom user experiences, system integrations, data conversions, custom process automation, and simple visualizations.

### COURSE OBJECTIVES

This course focuses on enabling learners to design, configure, and implement solutions using the Power Platform. Its objectives include mastering Dataverse, Power Apps, Power Automate, and integrations to deliver business value.

### PREREQUISITES

While no formal prerequisites are enforced, candidates are expected to have foundational Power Platform knowledge and business/IT experience.

### COURSE CONTENT

#### **Module 1: Getting started using Dataverse**

Do you want to learn how to build solutions that can use a standardized data structure and work with other solutions sharing the same data model? Do you want to extend the standard model to support custom solutions? This learning path explains the concepts behind and the benefits of Dataverse. Creating an environment, entities, fields, and option sets are also discussed in this learning path.

#### **Module 1.1: Create and manage environments in Dataverse**

An environment is a space to store, manage, and share your organization's business data that is stored within an instance of a Dataverse database. You can set up one or many environments, depending on the needs of your organization. This module explores these environments and how you can use them with instances of Dataverse databases.

#### **Module 1.3: Manage tables in Dataverse**

Dataverse tables are similar to tables in a database. Every instance of a Dataverse database includes a base set of tables that provide structure for data that is commonly used by business applications.

#### **Module 1.2: Create tables in Dataverse**

Dataverse lets you securely store and manage data that's used by business applications. Standard and custom tables within Dataverse provide a secure and cloud-based storage option for your data.

#### **Module 1.4: Create and manage columns within a table in Dataverse**

Do you want to create new data columns or use existing standardized columns for your business solutions? This module shows you how to manage or create new columns within a table in Dataverse.

**Module 1.5: Work with choices in Dataverse**

Do you want to create standardized choice lists that you can use across all of your Power Apps? This module shows you how to create new or use standard choice lists called choices in Dataverse.

**Module 1.7: Connect to other data in a Power Apps canvas app**

Do you need to connect to data that isn't tabular? This module will help with that. It includes discussion of action-based connectors, Flow, and user data.

**Module 2: Manage permissions and administration for Dataverse**

Do you need to manage user access rights? In this learning path, you will learn how to manage permissions associated with environments and entities. You will also learn about different administrative portals and how to access each.

**Module 2.1: Get started with security concepts in Dataverse**

This module provides a comprehensive introduction to essential security concepts in Microsoft Dataverse.

**Module 2.3: Use administration options for Dataverse**

Do you need to use administration options that are available for Dataverse? This module will show you how you can use solutions within Dataverse and administer environments.

**Module 3: Visualize, import, and export Microsoft Dataverse data**

This learning path will show you how to use various Dataverse views, explore how Power Query can load data into Dataverse tables, and how to use Dataverse with third-party tools.

**Module 3.1: Visualize data with Dataverse views**

The number of records and columns for many Dataverse tables can be overwhelming. To help Power Apps users be more efficient, you can create Dataverse views. You can access the sorting, filtering, and display properties of Dataverse views in Power Apps Studio. In this module, you explore how to take advantage of Dataverse views to visualize data by using only the required columns, records, and applicable sorting.

**Module 3.3: Use Microsoft Word and Excel templates with Dataverse**

Explore how you can create data analysis and standardized documents by using Microsoft Dataverse data along with Microsoft Word and Excel templates.

**Module 3.5: Use Azure and external tools to manipulate data**

Explore how Azure and external tools can provide solutions to help you manipulate Microsoft Dataverse records.

**Module 4: Create relationships, business rules, calculations, and rollups in Dataverse**

Do you need to create data relationships, business rules, calculations, and rollups in Dataverse? These modules help you use Dataverse to build powerful business solutions to transform your operations, processes, and your entire organization. The learning path Get started with Dataverse introduces you to Dataverse and many of the key concepts which include environment, entities, fields, and options sets. This learning path continues and expands the exploration of Dataverse with an overview how to form relationships between entities, how to build business rules to perform logic based upon your organization's needs, and how to add calculations and rollup fields.

**Module 1.6: Load/export data and create data views in Dataverse**

Dataverse lets you load data into or export tables from other tables by using Microsoft Excel. You can also create views to quickly review data that is stored within a table.

**Module 2.2: Get started with security roles in Dataverse**

Do you want to use security roles to limit user permissions? This module will show you how you can set permissions to limit access to an environment. Or limit which users can view, edit, or delete data in an environment within Dataverse.

**Module 3.2: Use Power Query to load data in Dataverse**

Synchronizing data from different sources to a Microsoft Dataverse table can seem overwhelming. To help Power Apps users with these processes, users can create Dataverse dataflows. Dataflows use the Power Query interface that is accessible in Power Apps Studio to provide a guided approach. Also, in this module, you'll explore how Power Query can help load data into Dataverse tables.

**Module 3.4: Export data from Dataverse and use Microsoft Excel to edit records**

Explore how you can use Microsoft Excel files to export and edit Microsoft Dataverse table data.

### **Module 4.1: Create a relationship between tables in Dataverse**

Do you need to create relationships between tables? This module will show how and why you can separate data into tables and how to relate between tables to build complex and robust business solutions. It will also explain the different kinds of relationships that you can define between tables in Dataverse.

### **Module 4.3: Create and define calculation or rollup columns in Dataverse**

Do you want to use rollup or calculation columns? This module shows you how to build calculations or rollups that are defined and triggered within the data in Dataverse, regardless of the app that accesses that data set.

## **Module 5: Advanced Model-Driven Apps with Power Apps: Configuration, Customization, and Deployment Techniques**

This learning path covers creating and customizing model-driven apps in Microsoft Power Platform, including using forms, views, and dashboards, deploying and evolving apps, and leveraging reporting, analytics, and command customization.

### **Module 5.1: Configure forms, charts, and dashboards in model-driven apps**

In this module, you'll learn about forms, grids, views, charts, and dashboards that can be used in model-driven apps.

### **Module 5.3: Solution Architect series: Evaluate Power Platform analytics and AI**

A solution architect for Microsoft Power Platform evaluates the needs for reporting and then identifies the best approach. This module examines the available reporting and analytics options for Power Platform.

### **Module 5.5: Customize the command bar**

Learn to implement actions for customized commands on the command bar in Power Apps.

## **Module 6: Create a canvas app in Power Apps**

Do you want to create apps to help make your business more efficient? Then this path is for you. It introduces you to Power Apps, helps you create and customize an app, and then manage and distribute it.

### **Module 6.1: Get started with Power Apps canvas apps**

This module introduces the learner to Power Apps. It starts with an introduction video briefly describing the "why" (case for Power Apps) and the "what" for what users can do with Power Apps. The units then take users through the "how" instilling in them the confidence that they can use Power Apps to interact with their data.

### **Module 6.3: How to build the User Interface in a canvas app in Power Apps**

In this module, learners will learn how to build UI for their app including theming, icons, images, personalization, form factors, and controls. In their learning path, thus far, learners have used basic controls with little to no customization. This unit shows how

### **Module 4.2: Define and create business rules in Dataverse**

The ability to build business rules that ensure consistent business logic whatever app is accessing that data set is imperative to a successful business operation. This module will show you how you can build business rules that are triggered anytime they're used within Dataverse.

### **Module 5.2: Use specialized components in a model-driven form**

A model-driven app is a powerful app development tool within Microsoft Power Platform. Model-driven apps can build enterprise applications that run on user desktops or mobile devices. A form is an important component of a model-driven app. Forms function as an interface between the user and data that's stored in Microsoft Dataverse. Forms consist of controls, data, and business logic. Apart from regular controls, specialized controls are available to help you complete typical business requirements.

### **Module 5.4: Deploy and refine your app like a pro**

Your app has been tested and is ready to go. Now, it's time to deploy and share it with your users. After apps have been deployed, it's common for them to evolve and improve over time. As people begin using the app, you can expect them to request new features, fixes, or that you accommodate a business process that has changed.

### **Module 6.2: Customize a canvas app in Power Apps**

In this module, we'll show learners how to customize their app, a necessary skill for taking advantage of the capabilities of Power Apps. This unit builds upon the app produced in the first unit.

### **Module 6.4: Navigation in a canvas app in Power Apps**

This module takes learners beyond basic navigation by introducing screen transitions and using controls other than buttons for navigation. It also introduces the concept of the documentation screen.

to make an app more personal and help it fit branding or personal requirements.

#### **Module 6.5: Manage apps in Power Apps**

Manage app versions, app sharing, and environments in Power Apps.

### **Module 7: Use the UI and controls in a canvas app in Power Apps**

The app user experience often defines the success of your app. This learning path will focus on how to provide the best app navigation, and build the best UI using themes, icons, images, personalization, different form factors, and controls.

#### **Module 7.1: Use and understand Controls in a canvas app in Power Apps**

Controls help create a better experience for the user and collect the appropriate data. This module helps you understand and use Controls.

#### **Module 6.6: Build a mobile-optimized app from Power Apps**

Microsoft Power Apps is a powerful platform for building applications that can run on a user's desktop or mobile device. Depending on the requirements of the application, the canvas app from Power Apps might be used on mobile devices exclusively. In those instances, the canvas app must be mobile-optimized to provide the best user experience possible, which you can achieve through various design factors that will be covered in this module.

#### **Module 7.2: Document and test your Power Apps application**

In this module, you'll learn best practices around testing and documenting your Power Apps application.

### **Module 8: Use basic formulas to make better Power Apps canvas apps**

Do you want to use formulas to improve functionality and change a behavior in your Power Apps canvas app? This learning path can help you accomplish your goal.

#### **Module 8.1: Create formulas to change properties in a Power Apps canvas app**

Want to enhance or customize your Power Apps canvas app? You can use easy-to-write formulas to make changes in your app that include changing the format or position of controls, do simple math calculations, or implement conditional formatting in your design.

#### **Module 8.2: Create formulas to change behaviors in a Power Apps canvas app**

Learn how to enhance and customize your Power Apps canvas app using basic formulas to make behavior changes to your app such as controlling the visibility or display mode of your controls and visuals.

#### **Module 8.3: Author a basic formula that uses tables and records in a Power Apps canvas app**

Do you want to use tables and records and filter data in your canvas app? This module will focus on the differences between a table and a record and how to utilize both within your Power Apps canvas app.

### **Module 9: Advanced Canvas App Development in Power Apps: Mastering Formulas and Development Techniques**

This learning path teaches how to write complex formulas and apply imperative development techniques in Power Apps, including understanding various development methods and utilizing different types of variables.

#### **Module 9.1: Create formulas to change properties in a Power Apps canvas app**

Do you have a need for complex formulas in your app? This module can help you write those formulas.

#### **Module 9.2: Use imperative development techniques for canvas apps in Power Apps**

Imperative development techniques can help you achieve the goal for your app. You learn about different development methods and different variables in Power Apps.

### **Module 10: Work with Power Pages websites**

Power Pages websites are designed for interaction with the internal and external audiences. There are additional requirements for content management and design, as well as the need to secure the content. This learning path describes how Power Pages components work within context of Dataverse to deliver the content and data to external and internal audiences. We'll cover the topics of user authentication and how to secure access to different parts of the website content based on the target audience and relationship to the content.

**Module 10.1: Explore Power Pages design studio**

Power Pages makers spend most of their time building sites in Power Pages design studio. It's important that makers have a full understanding of the capabilities and also the limitations of the design studio. This module will focus on understanding and using the design studio to create and customize sites. Power Pages design studio allows makers to add and configure pages, layout components, static content, custom CSS files, lists, and forms connected to Dataverse.

**Module 10.3: Work with Power Pages metadata**

Makers are required to understand the various Power Pages metadata components so they can set up the website for various unique requirements. This module uses the Portal Management app to set up various website features by editing the website metadata.

**Module 10.5: Integrate Power Pages websites with Dataverse**

The ability to find and interact with Dataverse data on a website is a central benefit of implementing a Power Pages website. Several methods are available for you to display Dataverse data. Learning and knowing about these different options can help you have successful portal implementations. This module focuses on the techniques that you can use to set up lists, forms, and multistep forms to build powerful web applications.

**Module 10.7: Set up Power Pages security**

The concept of exposing Microsoft Dataverse on a public webpage is appealing for addressing numerous business requirements. However, careful consideration is necessary to avoid exposing private or sensitive data. This module focuses on helping you learn about and set up website security to protect static and dynamic content and limit visibility to specific audiences.

**Module 11: Extend Power Pages**

The ability to easily surface and interact with Microsoft Dataverse data on an externally facing website is the core benefit for implementing a Power Pages website. This learning path describes how to transform a content website into a complete web app interacting with Dataverse. We will also cover the options available to customizers and developers to extend the website functionality and integrate with Office 365, Microsoft Power Platform, and Azure components.

**Module 11.1: Access Dataverse in Power Pages websites**

The ability to show and interact with Dataverse data on a website is a central benefit of implementing a Microsoft Power Pages website. This module focuses on the several techniques and methods for displaying and interacting with Dataverse data on Power Pages websites.

**Module 12: Administer Power Pages**

Administrators need to understand how to configure various features and add-ons to ensure Power Pages site runs securely and efficiently. Power Pages provide additional features and functionality including integration with other Microsoft technologies such as SharePoint document libraries and Power BI reports. This learning path describes tools and techniques available for administrators to configure and maintain Power Pages sites, as well as efficiently troubleshoot the issues.

**Module 10.2: Explore Power Pages design studio data and security features**

Power Pages makers spend most their time building sites in Power Pages design studio. It's important that makers understand design studio capabilities as well as its limitations. Power Pages design studio includes Data workspace to create and manage business data and Set up workspace to configure site security and behavior. This module will focus on using the design studio to build secure Dataverse data-driven pages.

**Module 10.4: Explore Power Pages templates**

Power Pages templates are pre-configured solutions that are available to help accelerate deployment. Site templates provide an environment that is immediately suitable for specific scenarios and audiences.

**Module 10.6: Work with Liquid template language in Power Pages**

Liquid is an open-source template language that's integrated natively into Power Pages. It acts as a bridge between Microsoft Dataverse and the HTML or text output that's sent to the browser. You can use Liquid to add dynamic content to pages and to create various custom templates. Additionally, Liquid provides access only to the data and operations that the website explicitly allows.

**Module 11.2: Extend Power Pages website**

The world of business software applications embrace a movement toward building apps that use low-code/no-code methods. This movement is a pillar of Microsoft Power Platform, including Power Pages websites. However, many projects often include functionality or features that can only be addressed with advanced software development techniques. This module explains how you can extend website functionality by using software development and how to use application lifecycle management (ALM) techniques to deploy Power Pages websites.

**Module 12.1: Power Pages administration**

This module focuses on Microsoft Power Pages administration and using the Microsoft Power Platform admin center. Additionally, other actions and features are available for you to use to enhance website functionality.

**Module 12.3: Authentication and user management in Power Pages**

An external user might have several identities to choose from when registering and accessing a website. You can add website users in many ways, and several options are available to website users for validating their identities and maintaining their profiles. Microsoft Power Pages supports various authentication options and provides powerful user-management capabilities. Administrators can choose between using local authentication or delegating authentication to a trusted authentication provider. Power Pages supports multiple authentication providers and various industry standards.

**Module 13: Work with Power Automate error handling and expressions**

This learning path covers how to use your Power Automate skills to master error handling and expressions. Learn best practices for identifying and resolving flow failures efficiently using the flow actions and built-in error reports. Then, take your automation to the next level by leveraging expressions to manipulate and optimize your data.

**Module 13.1: Best practices for error handling in Power Automate flows**

Getting notifications when your flow has failed because of an error is critical to maintaining business continuity. Also, the notification should provide the cause of the error to help you resolve it quickly. This module will focus on how you can use Configure run after, an option that is available for flow actions, to help isolate errors. It also overviews the built-in error reports.

**Module 14: Integrate Power Automate flows and Dataverse**

Work with triggers and actions to extend Power Automate and Dataverse. This Learning Path looks at how to use these features with your flows.

**Module 14.1: Use Dataverse triggers and actions in Power Automate**

This module introduces the triggers and actions that you can use to build flows in Power Automate with Dataverse.

**Module 12.2: Integrate Power Pages with web-based technologies**

Occasionally, you'll need to integrate your portal to web-based technologies to extend the scope of your application. This module explains the process and options to integrate a Power Pages website with related technologies, such as SharePoint, Microsoft Power BI, model-driven charts, and others.

**Module 12.4: Power Pages maintenance and troubleshooting**

When building a Microsoft Power Pages website, administrators should consider various techniques, best practices, and features. This module covers the various troubleshooting tools that are available and explains the importance of using the Site Checker tool.

**Module 13.2: Introduction to expressions in Power Automate**

Get the most out of your data using functions to create expressions.

**Module 14.2: Extend Dataverse with Power Automate**

With the Microsoft Dataverse connector, you can build Power Automate cloud flow automations that start on events within a Dataverse environment. In addition to the primary data operations, you can also work with files and images, perform custom actions, search data, and manage transactions on data operations.

**Module 15: Power Platform Solution Management: Sharing, Customization, and Low-Code Development Essentials**

This learning path covers sharing Power Automate cloud flows, using Power Apps for app creation, managing solutions in Power Automate, and transporting and customizing apps within Microsoft Power Platform.

**Module 15.1: Share a cloud flow with Power Automate**

When you create a new Power Automate cloud flow, you're the only one who can view, edit, and run it. By sharing a cloud flow, you can allow other users within your organization to run or help edit your automation. In this module, you learn how and when to share cloud flows and which types to use.

**Module 15.2: Understanding Low Code as a Traditional Developer**

Power Apps can be a powerful tool for citizen developers and traditional developers alike. Upon finishing this module, a traditional developer will have learned how Power Apps work, what the formula language is, and how to create an app using Power Apps.

**Module 15.3: Manage solutions in Power Apps and Power Automate**

Microsoft Power Apps and Power Automate include such package features as apps from Microsoft Power Apps, site maps, flows, entities, customer connectors, and more. In this module, you'll learn how to manage solutions with Power Automate.

**Module 15.4: Introduction to solutions for Microsoft Power Platform**

Solutions for Microsoft Power Platform can help you transport an existing app and components from one environment to another. Additionally, solutions will help you apply a set of customizations to existing apps. This module will share solution basics and best practices.

### **Module 16: Validate your Power Platform Functional Consultant skills**

This learning path prepares you to complete the Microsoft Power Platform Functional Consultant challenge project and validate your skills. You should have already completed the following modules as part of the PL-200: Microsoft Power Platform Functional Consultant course. If you haven't, it's recommended that you take some time to complete these modules before beginning the challenge project.

#### **Module 16.1: Get started with model-driven apps in Power Apps**

Model-driven app design is an approach that focuses on quickly adding components to your apps. These components include dashboards, forms, views, and charts. With little or no code, you can make apps that are simple or complex.

#### **Module 16.3: Challenge project - Build applications and automation solutions**

Configure your own Microsoft Power Platform model-driven app, canvas app, and Power Automate cloud flow to support a scenario for a fictional company. You're provided with high-level specifications to complete this project.

#### **Module 16.2: Get started with Power Automate**

Power Automate is an online workflow service that automates actions across the most common apps and services.

### **ASSOCIATED CERTIFICATIONS & EXAM**

This course will prepare delegates to write the PL-200 Power Platform Functional Consultant Exam.