

## MS-PL200T00: MICROSOFT POWER PLATFORM FUNCTIONAL CONSULTANT (WITH APPLIED WORKSHOP)



DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
5 Days	Intermediate	Power Platform	Instructor-led	NA

### 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.

### PREREQUISITES

Learners should start this course already having the following skills:

- Experience as an IT professional or student
- Working knowledge of the Power Platform and its key components
- A knowledge of the Common Data Service and security concepts

### COURSE OBJECTIVES

After completing this course, students will be able to:

- Work with an organization to gather requirements and implement Power Platform solutions
- Build model-driven, canvas, and portal apps
- Create Power Automate flows
- Design a simple chatbot using Power Virtual Agents
- Analyse data using Power BI visualizations and dashboards

### COURSE CONTENT

#### Module 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.

##### Lessons

- Environments in Microsoft Dataverse

- Developer environments
- Create and manage an environment
- Create an instance of a Microsoft Dataverse database
- Add users and roles within an environment
- Manage settings in an environment
- Environment operations
- Check your knowledge
- Summary

After completing this module, students will be able to:

- Identify the different environments that are in Dataverse.
- Create and manage environments in Dataverse.
- Create an instance of a database in Dataverse.
- Add users and security roles within an environment in Dataverse.
- Determine where to manage settings for an environment.

#### Module 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.

#### Lessons

- Introduction to Microsoft Dataverse.
- Table characteristics.
- Exercise - Create a Microsoft Dataverse table.
- Exercise - Import data into your Microsoft Dataverse database.
- Table relationships.
- Exercise - Create table relationships.
- Dataverse logic and security.
- Exercise - Create a custom table and import data.
- Dataverse auditing.
- Dual-write vs. virtual tables.
- Check your knowledge.
- Summary

After completing this module, students will be able to:

- Create tables with Dataverse.
- Import data into a Dataverse database.

### Module 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.

#### Lessons

- Identify tables and table types in Dataverse
- Create a custom table
- Enable attachments within a table
- Licensing requirements for each table type
- Exercise - Create a new custom table and enable attachments
- Check your knowledge
- Summary

In this module, you'll learn about:

- Tables in Dataverse.
- Types of tables that are available in Dataverse.
- Creating a custom table.
- Enabling attachments within a table.
- Which licensing requirements to apply to use each type of table.

### Module 4: Create and manage columns within a table 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.

#### Lessons

- Create a custom table.
- Enable attachments within a table.
- Licensing requirements for each table type.
- Lab - Create a new custom table and enable attachments.

After completing this module, students will be able to:

- Tables in Dataverse.
- Types of tables that are available in Dataverse.
- Creating a custom table.
- Enabling attachments within a table.
- Which licensing requirements to apply to use each type of table.

### Module 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.

#### Lessons

- Define choice column
- Choice columns
- Standard choices column
- Exercise - Create a new choice or modify an existing choice
- Check your knowledge
- Summary

After completing this module, students will be able to:

- Learn about choices.
- Explore the standard choices.
- Create a new choice or modify an existing one.

### Module 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.

#### Lessons

- View data in a table
- Create or edit views of data in a table
- Dataverse data import options
- Load data into a table
- Dataverse data export options
- Export
- Add, update, or delete data in a table by using Excel
- Import data using Power Query
- Check your knowledge
- Summary

In this module, you will:

- View data within a table.
- Create or edit views of data in a table.
- Load data into a table.

- Export data from a table.
- Add, update, or delete data in a table by using Excel.
- Import data using Power Query in Maker Portal
- Generate a new dataflow from an Excel Template.
- Learn about dataflows.

### Module 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.

#### Lessons

- Overview of the different data sources
- Work with action data
- Power Automate is a companion to Power Apps
- Module assessment
- Summary

In this module, you'll:

- Understand and use action-based connectors.
- Integrate user information and user-profile information into a canvas app.
- Use Power Automate with Power Apps.

### Module 8: Get started with security concepts in Dataverse

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

#### Lessons

- Introduction
- Role-based security
- Business units
- Hierarchy security
- Table/record ownership
- Column-level security to control access
- Manage security across multiple environments
- Check your knowledge
- Summary

This module explains the following concepts:

- Different security models that are available in Dataverse and how to apply them to safeguard data.
- How to manage user and team security roles and how they impact data access and permissions.
- Business units and their role in structuring security in a Dataverse environment.
- Field-level security and how it helps protect sensitive data.
- Record ownership, sharing, and how these mechanisms control access to data.

### Module 9: 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.

Lessons

- Introduction to environment roles
- Understand environment roles
- Adding or disabling an environment user
- Understand user security roles and security role defaults
- Exercise - Create a custom role
- Check the roles that a user belongs to
- Configure Dataverse teams for security
- Configure Dataverse group teams for security
- Check your knowledge
- Summary.

After completing this module, students will be able to:

- Learn about security roles and apply them to users in an environment.
- Learn how to add users to an environment.
- Understand security concepts in Dataverse.
- Identify default security roles.
- Create a custom role.
- Create a custom security role and assign it to entities and users.
- Learn how to configure Dataverse teams for security.
- Learn how to configure Dataverse group teams for security.

## Module 10: 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.

Lessons

- Introduction to Microsoft Power Platform Admin Center portal
- Use Microsoft Power Platform Admin Center portal
- Tenant storage capacity
- Advanced Customization options in Power Apps Portal
- Dataverse Search
- Auditing
- Duplicate detection
- Bulk delete
- Long term data retention
- Check your knowledge
- Summary

After completing this module, students will be able to:

- Administer Dataverse.

- Identify the different portals that are available for Dataverse.

## Module 11: 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.

Lessons

- Introduction
- Create and edit views in Power Apps maker portal
- Exercise - Add columns to a view
- Filter and sort data for Dataverse views
- Exercise - List your accounts
- Check your knowledge
- Summary

In this module, you'll:

- Discover the different types of Dataverse views.
- Learn how to create and edit views.
- Work with filters and sorting criteria.

## Module 12: Use Power Query to load data in Dataverse

Lessons

- Introduction
- Import static data by using Power Query
- Exercise - Add new accounts from a text file
- Import dynamic data by using Power Query
- Exercise - Transfer an attendee list to a contact table
- Check your knowledge
- Summary

In this module, you will:

- Understand the different data source categories available when using Power Query.
- Know how to import data into a Dataverse table by using Power Query.
- Understand the different refresh options available.

## Module 13: 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.

Lessons

- Introduction

- Create a dynamic Word template
- Exercise - Create a work order template
- Create a dynamic Excel template
- Exercise - Create a sales forecasting template
- Check your knowledge
- Summary

In this module, you'll:

- Learn how to use Word templates with Dataverse data.
- Learn how to use Excel templates with Dataverse data.

## Module 14: 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.

Lessons

- Introduction
- Export data to Excel
- Exercise - Create an editable Excel file for bulk validation
- Edit and update data in Excel
- Exercise - Edit account information in Excel and visualize updates in Dataverse
- Check your knowledge
- Summary

In this module, you'll:

- Learn how to export data from Dataverse into Excel files.
- Discover the different exported file types.
- Learn about the security concepts for the exported data.

## Module 15: Use Azure and external tools to manipulate data

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

Lessons

- Introduction
- Use Dataverse community tools for data manipulation
- Review Power BI integration with Dataverse
- Check your knowledge
- Summary

In this module, you'll:

- Discover the features of Azure Synapse Link for Dataverse.
- Learn how Dataverse community tools can help with data manipulation.
- Discover how Power BI services and tools relate to Dataverse.

## Module 16: 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.

- Relate one or more tables – Introduction.
- Relationship types that are available in Microsoft Dataverse.
- Create a one-to-many relationship between tables.
- Create a many-to-many relationship between tables.
- Edit or delete relationships.
- Exercise - Create two tables and relate them by using a one-to-many relationship.

After completing this module, students will be able to:

- Why you should segment data that is used by your solutions into many tables.
- Why you need to relate one table to another.
- How to build relationships between tables.
- How to select the proper relationship type when you're building solutions with Dataverse.

## Module 17: 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.

Lessons

- Introduction to expressions.
- Define business rules - Introduction
- Define the components of a business rule
- Create a business rule
- Exercise - Create a business rule
- Check your knowledge
- Summary.

After completing this module, students will be able to:

- Define business rules in Dataverse.
- Create and manage business rules in Dataverse.

## Module 18: 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.

Lessons

- Create a rollup column
- Introduction to calculated columns
- Create a calculation column
- Exercise - Create a rollup column
- Exercise - Create a calculated column
- Introduction to Power Fx formula columns
- Check your knowledge
- Summary

After completing this module, students will be able to:

- Define a rollup column.
- Create a rollup column.
- Identify a calculation column.
- Create a calculation column.
- Define a formula column.

## Module 19: 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.

Lessons

- Forms overview
- Form elements
- Configure multiple forms
- Use specialized form components
- Configure views overview
- Configure grids
- Create and edit views
- Configure charts overview
- Dashboards overview
- Use interactive streams and tiles
- Module assessment
- Summary

After completing this module, students will be able to:

- Use form elements and controls
- Configure forms
- Use specialized form components
- Use editable grids
- Identify views and use public views
- Learn how to configure charts
- Learn how to configure dashboards

## Module 20: 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.

Lessons

- Introduction
- Create business process flows
- Exercise - Create a business process flow
- Embed a canvas app in a model-driven form
- Add a timeline in a model-driven form
- Create a report in a model-driven form
- Check your knowledge
- Summary

After completing this module, students will be able to:

- Learn about other components in a model-driven form.
- Create a business process flow.
- Embed a canvas app in a model-driven form.
- Add a timeline in a model-driven form.
- Create a report in a model-driven form.

## Module 21: 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.

Lessons

- Introduction
- Power Platform reporting capabilities
- Power BI overview
- Data requirements
- Power BI and Power Platform
- Dataflows
- AI
- Check your knowledge
- Summary

In this module, you will:

- Discover the planning and evaluating requirements.
- Learn about operational reporting.
- Review the capabilities of Microsoft Power BI and how to use it with Power Platform components.
- Learn how to use pre-built insights and custom AI.

## Module 22: 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.

#### Lessons

- Introduction
- Publish the app
- Share the app
- Use QR codes
- Exercise - Embed your app into other Microsoft applications
- Collect feedback and analyze telemetry
- Check your knowledge
- Summary

In this module, you'll:

- Deploy your app and help users discover it.
- Get feedback and usage information to help refine your app.

#### Module 23: 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.

#### Lessons

- Introduction to Power Apps
- Start Power Apps
- Exercise - Create your first app in Power Apps
- Power Apps data sources
- Exercise - Create an app from Excel using Copilot
- Use Power Apps with Power Automate and Power BI
- Designing a Power Apps app
- Check your knowledge
- Summary.

After completing this module, students will be able to:

- Explore how Power Apps can make your business more efficient.
- Use different technologies to perform different tasks in Power Apps.
- Build an app in Power Apps in different ways.
- Create your first app from data in an Excel workbook.

#### Module 24: Customize the command bar

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

#### Lessons

- Introduction.
- Create or edit modern commands

- Work with classic commands
- Use Power Fx
- Exercise - Customize the command bar
- Check your knowledge
- Summary.

After completing this module, students will be able to:

- Create or edit modern commands
- Work with classic commands
- Use Power Fx
- Customize commands

#### Module 25: 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.

#### Lessons

- Get started with Power Pages. Improve your app by making basic customizations
- Explore controls and screens in canvas apps
- Exercise - Introduction to formulas in canvas apps
- Exercise - Create basic screen navigation for a canvas app
- Check your knowledge
- Summary.

After completing this module, students will be able to:

- Change the layout of a gallery.
- Change the data that a control portrays.
- Modify a form control to show different data fields.
- Learn about gallery and form controls.
- Add a screen.
- Learn how to modify label properties by using basic formulas.
- Add labels.
- Learn how to create basic screen navigation.

#### Module 26: 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 to make an app more personal and help it fit branding or personal requirements.

#### Lessons

- Use themes to quickly change the appearance of your app
- Brand a control
- Icons

- Images
- Personalization
- Build for phones or tablets
- Exercise - Create and adjust UI for a new canvas app
- Module assessment
- Summary

In this module, you will:

- Understand the basics of building the UI through themes, icons, control customization, and images.
- Use personalization in a canvas app.
- Learn how to preview and modify an app to fit different form factors.

#### Module 27: 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.

#### Lessons

- Understanding navigation
- The Navigate and Back functions
- More ways to use the Navigate function
- Exercise - App navigation practice
- Module assessment
- Summary.

After completing this module, students will be able to:

- Gain a greater understanding of the Navigate and Back functions.
- Learn how to use screen transitions in an app.
- Learn how to preview and modify an app to fit various form factors.
- Gain hands-on experience in building navigations inside an app.
- Learn how to use other controls for app navigation.

#### Module 28: Manage apps in Power Apps

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

#### Lessons

- Introduction
- Exercise - Manage app versions in Power Apps
- Exercise - Share apps in Power Apps
- Exercise - Understand environments in Power Apps
- Review of managing Power Apps
- Check your knowledge
- Summary

In this module, you will:

- Learn how to view and restore app versions.
- Explore how to share an app, including permissions and notifications.
- Learn about what environments are, how to create them, and how to manage security.
- Find more information about Power Apps.

## Module 29: 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.

### Lessons

- Introduction
- Learn about mobile-optimized apps
- Identify components to make a canvas app mobile-optimized
- Create a mobile-optimized app that uses responsive designs
- Identify performance considerations for a mobile-optimized canvas app
- Check your knowledge
- Summary

In this module, you:

- Learn about the concept of a mobile-optimized application.
- Discover the components of a mobile-optimized canvas app.
- Build a mobile-optimized canvas app.
- Review the performance considerations in a canvas app.
- Monitor the performance of a canvas app

## Module 30: 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 Control

### Lessons

- Introduction to controls
- Core properties of controls
- Entering and displaying data with text controls
- Additional controls for enhancing your app's usability
- Media
- Modern controls
- Work with component libraries

- Exercise - Create a canvas app with unique controls
- Exercise - Upload file to SharePoint document library
- Module assessment
- Summary

This module explains these concepts:

- Understand how to use controls in a canvas app
- Use the different types of controls
- Understand how Galleries and Forms relate to controls

## Module 31: Document and test your Power Apps application

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

### Lessons

- Create test plans
- User interface testing
- Performance optimization
- Diagnostics and analytics
- Documentation and the customer
- Module assessment
- Summary

In this module, you will:

- Learn about the different types of test plans and components of a good test plan
- Identify and discuss optimization tools and performance tuning
- Learn about the benefits of documenting your application

## Module 32: 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.

### Lessons

- Formulas overview
- Use a formula to modify the format of controls
- Use formulas to perform calculations
- Use a control to modify the property of other controls
- Conditional formatting
- Functions for validating data
- Module assessment
- Summary

This module explains how to:

- Understand the basics of how to use formulas in a canvas app.
- Change the format of a date control.
- Use a formula to do simple math calculations.

- Change the position of an icon using a formula.
- Understand how to implement conditional formatting in canvas apps using a formula.

## Module 33: 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.

### Lessons

- Formulas and functionality
- Understanding true and false
- Understanding control behaviors and actions
- Performing multiple actions in a formula
- Control the display mode through a formula
- Use controls and functions to create a dynamic formula
- Module assessment
- Summary

This module explains how to:

- Understand True and False.
- Control the visible property with a formula.
- Control the display mode with a formula.
- Combine formulas into a single statement.

## Module 34: 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.

### Lessons

- Records and tables
- Using the Table function
- Store a table
- Filter your table
- Use the lookup function to return a record
- Additional table functions
- Exercise - Use collections and manipulate tables
- Module assessment
- Summary

In this module, you will:

- Understand tables and records in Power Apps
- Understand how to use Collect and ClearCollect to make multi-column tables
- Add a collection as a data source to a gallery
- Filter your table of data
- Use the LookUp function

## Module 35: Create formulas that use tables, records, and collections in a canvas app in Power Apps

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

- Formulas that process multiple records
- Math operations on tables
- Combine and separate records
- The ForAll function
- Exercise- Using the ForAll function in a gallery
- Module assessment
- Summary

In this module, you will:

- Utilize formulas that process multiple records.
- Use the Concat function to combine text from multiple records.
- Utilize the Countrows, Countif, ForAll.
- Perform math operations on data in a table.

## Module 36: Explore Power Pages design studio data and security features

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.

Lessons

- Introduction to Power Pages design studio.
- Work with pages.
- Page components.
- Site styling and templates.
- Exercise - Edit pages.
- Check your knowledge.
- Summary.

After completing this module, students will be able to:

- Discover Data workspace, Dataverse data modelling and table permissions in Power Pages design studio.
- Explore how to extend the Dataverse data model and how to add connected data components to your page.
- Learn about securing access to a page.
- Identify where to add table permissions to secure business data.

## Module 37: 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.

Lessons

- Introduction
- Power Pages metadata
- Webpages
- Power Pages templates
- Exercise - Build side navigation
- Check your knowledge
- Summary

In this module, you'll:

- Review the various Power Pages metadata records and how you can use them to set up specific aspects of a website.
- Learn about the Portal Management model-driven app and how you can use it to set up specific aspects of a Power Pages website.
- Discover the structure of a webpage record and the various components that you can use to render a webpage and show content from multiple languages.
- Examine the page template and web template structure and how they apply consistent layouts and functionality of a webpage.

## Module 38: 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.

Lessons

- Introduction to site templates in Power Pages
- Site design templates
- Scenario-based templates
- Dynamics 365 Power Pages site templates
- Check your knowledge
- Summary

In this module, you will:

- Identify the scenario-based templates to accelerate creating your site.
- Discover the features of the Dynamics 365 templates.
- Review the generic site design templates designed to solve unique business needs.
- Learn about blank template as a simple starting point to build

a site to your exact specifications.

## Module 39: 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.

Lessons

- Introduction
- Basic form configuration
- Multistep form processes
- Set up multistep forms
- Extend lists and forms
- Exercise - Extend forms with more actions
- Check your knowledge
- Summary

In this module, you'll:

- Set up lists to display Dataverse data in different ways and allow website users to interact with the data by using various techniques.
- Implement forms to allow the creating, reading, and updating of Dataverse rows.
- Build a multistep form process to allow for complex and decision-based data entry.
- Trigger classic Dataverse workflows from the website.
- Combine the various Power Pages components to build powerful web applications.

## Module 40: 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.

Lessons

- Introduction
- Liquid basics
- Access Dataverse data
- Data security and Liquid
- Exercise - Display a list of accounts
- Check your knowledge
- Summary

In this module, you'll:

- Learn about Liquid template language and how you can use it in Power Pages.
- Learn how to interpret the syntax of Liquid and how to write Liquid code.
- Differentiate Liquid tags, objects, and filters.
- Discover how to use FetchXML to show Dataverse data.

## Module 41: 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.

### Lessons

- Introduction.
- Secure static content.
- Table permissions.
- Exercise - Apply table permissions.
- Check your knowledge.
- Summary.

After completing this module, students will be able to:

- Learn about the relationship between Dataverse contacts and website users.
- Identify the various website security metadata entities, such as contacts, web roles, webpage access control rules, and table permissions.
- Discover how you can limit access to webpages by using webpage access control rules.
- Learn how to set up table permissions to help secure Dataverse and Dynamics 365 records.

## Module 42: 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.

### Lessons

- Introduction.
- Use lists to display multiple Dataverse records.
- Use forms to interact with Dataverse data.
- Exercise - Use the list and form components.
- Check your knowledge.

- Summary.

After completing this module, students will be able to:

- Discover Power Pages components that are available to help you display and interact with Dataverse data on a Power Pages website.
- Identify the various features of the Power Pages components.
- Display a list of data and an associated drill-down list for details.
- Set up a form to access individual table rows.
- Trigger classic Dataverse workflows from the website.

## Module 43: Extend Power Pages websites

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.

### Lessons

- Introduction
- Power Pages website life cycle management
- Extend with scripts
- Advanced CSS
- Advanced client-side development
- Exercise - Add advanced client-side functionality
- Check your knowledge
- Summary

In this module, you'll:

- Discover where software development can resolve particular website feature requirements.
- Employ application lifecycle management (ALM) for Power Pages websites.
- Apply JavaScript code to website assets.
- Use Cascading Style Sheets (CSS) to address specific website development requirements.

## Module 44: 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.

### Lessons

- Introduction
- Power Pages administrative tools
- Power Pages life cycle
- Set up essential features of a Power Pages website
- Check your knowledge
- Summary

In this module, you'll:

- Identify the various Microsoft Power Platform admin center actions and capabilities for setting up a Power Pages website.
- Learn about the Power Pages website life cycle.
- Manage SSL certificates and custom domain names.
- Differentiate key features such as website visibility, maintenance mode, and IP address restriction.

## Module 45: 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.

### Lessons

- Introduction
- Document management with SharePoint in Power Pages
- Integration with Power BI in Power Pages
- Model-driven charts in Power Pages
- Check your knowledge
- Summary

In this module, you'll:

- Discover how to use the Iframe component to link to other cloud-based technologies.
- Learn how to set up portal integration to SharePoint document libraries.
- Learn how to embed Power BI reports on a Power Pages page.
- Learn how to enhance a portal page with model-driven charts.

## Module 46: 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.

## Lessons

- Introduction
- Power Pages authentication settings
- User registration in Power Pages
- Authentication management for Power Pages users
- Power Pages authentication providers
- Exercise - Use an invitation to register users
- Check your knowledge
- Summary

In this module, you'll:

- Explore common authentication tasks in a Power Pages website deployment.
- Learn about portal contact extensions.
- Set up and register contacts as portal users.
- Align portal authentication settings with business requirements.
- Identify authentication provider capabilities and steps that are involved in the registration.
- Select and set up identity providers.

## Module 47: 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.

## Lessons

- Introduction
- Power Pages website maintenance
- Power Pages website troubleshooting
- Exercise - Run the Portal Checker
- Check your knowledge
- Summary

In this module, you'll:

- Apply strategies and techniques to troubleshoot Power Pages website issues.
- Learn how the Site Checker tool works and how to resolve potential website issues.
- Complete the website update process.

## Module 48: 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.

## Lessons

- Introduction.
- Configure run after option.
- Power Automate analytics.
- Check your knowledge.
- Summary.

After completing this module, students will be able to:

- Gain insight into the settings options for flow actions.
- Learn about the Configure run after option.
- Use the Configure run after option to handle errors.
- Discover Microsoft Power Automate analytics.

## Module 49: Introduction to expressions in Power Automate

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

## Lessons

- Introduction to expressions.
- Get started with expressions.
- Notes make things easier.
- Types of functions.
- Write complex expressions.
- Exercise - Creating a manual flow and using expressions.
- Check your knowledge.
- Summary.

After completing this module, students will be able to:

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

## Module 50: 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.

## Lessons

- Introduction.
- Dataverse triggers.
- Query data.
- Create, update, delete, and relate actions.
- Exercise - Create a cloud flow with a Dataverse connector.
- Check your knowledge.

- Summary.

After completing this module, students will be able to:

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

## Module 51: 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.

## Lessons

- Introduction
- Work with files and images
- Perform operations
- Search data
- Changesets
- Check your knowledge
- Summary

This module explains how to:

- Work with files and images stored in Dataverse columns
- Perform bound and unbound operations
- Search Dataverse data from a cloud flow
- Use changesets to create or modify Dataverse data in a transaction

## Module 52: 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.

## Lessons

- Introduction
- Share by using co-ownership
- Share by using the run-only option
- Use the Send a copy feature
- Exercise - Send a copy
- Solutions and sharing
- Check your knowledge
- Summary

This module explains these concepts:

- Learn the ways that you can share a cloud flow and the benefits of each.
- Discover whom you can share cloud flows with.
- Learn the differences in sharing various types of cloud flows.
- Learn how connections are handled when you share cloud flows.

- Find out about different options for sharing through co-ownership.
- Learn about run-only permissions.
- Discover the differences between sharing solution and non-solution cloud flows.

## Module 53: 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.

### Lessons

- Introduction
- What is low code?
- Understand Power Fx
- Exercise - Create Your First Power Apps app as a Traditional Developer
- Module assessment
- Summary

In this module you will:

- Understand what Power Fx is and how to use it.
- Create an app using Power Apps.
- Modify an app using Power Fx.

## Module 54: 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.

### Lessons

- Introduction
- Add and remove apps, flows, and entities in a solution
- Edit a solution-aware app, flow, and table
- Exercise - Import and export solutions
- Build and deploy a complex solution with flows, apps, and entities
- Automate solution management
- Check your knowledge
- Summary

In this module, you will:

- 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 55: 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.

### Lessons

- Introduction
- Solution layering
- Solution architecture tools and techniques
- Use version control for solutions
- Check your knowledge
- Summary

In this module, you'll:

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

## Module 56: 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.

### Lessons

- Introducing model-driven apps
- Components of model-driven apps
- Design model-driven apps
- Exercise
- Exercise - Control security when sharing model-driven apps
- Incorporate business process flows
- Exercise - Create a model-driven app
- Module assessment
- Summary

This module explains these concepts:

- Model-driven app design
- Creating a model-driven app

## Module 57: Get started with Power Automate

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

### Lessons

- Introducing Power Automate
- Create your first flow
- Exercise - Create recurring flows
- Exercise - Monitor incoming emails
- Exercise - Share flows
- Troubleshoot flows
- Module assessment
- Summary

In this module, you will:

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

## Module 58: 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.

### Lessons

- Introduction
- Prepare
- Exercise - Create Microsoft Dataverse tables, columns, and additional assets
- Exercise - Compose a model-driven app
- Exercise - Build a canvas app
- Exercise - Automate with a cloud flow
- Module assessment
- Summary

In this module, you demonstrate your ability to:

- Evaluate requirements
- Perform gap analysis of existing assets.
- Create needed assets from the stated requirements.
- Compose apps and automation.

## ASSOCIATED CERTIFICATIONS & EXAM

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