



PL-900 Study Guide

Microsoft Power Platform Fundamentals



PURPOSE

The following resources have been assembled to help you prepare for the PL-900 Microsoft Power Platform Fundamentals learning track during Microsoft Certification Week.

Use this guide to understand what knowledge is needed to complete the exam and as a learning tool to help you understand areas where you feel you need additional training. It is not required that you leverage all the resources in this guide to participate in Microsoft Certification Week.



AUDIENCE

All Pax8 Partners

Table of Contents

PL-900: Exam Resources	4
Audience Profile for the Exam	4
Preparing for the Exam	4
Exam Objectives	4
Objective: Describe the Business Value of Power Platform (15-20%).....	4
Objective: Identify the Core Components of Power Platform (15-20%)	5
Objective: Demonstrate the Capabilities of Power BI (15-20%)	6
Objective: Demonstrate the Capabilities of Power Apps (15-20%)	7
Objective: Demonstrate the Capabilities of Power Automate (15-20%).....	8
Objective: Demonstrate the Capabilities of Power Virtual Agents (15-20%)	9
On-Demand Training from Microsoft Learn	10
Virtual Training Series	10

PL-900: Exam Resources

Audience Profile for the Exam

Candidates for this exam aspire to improve productivity by understanding the capabilities of the Power Platform, automating basic business processes with Power Automate, performing basic data analysis with Power BI, acting more effectively by creating simple Power Apps experiences, and creating powerful chatbots by using Power Virtual Agents.

Preparing for the Exam

It is highly recommended when preparing for a Microsoft exam, that you have had some level of hands-on experience with the services within the objectives. Microsoft courses have a GitHub repository for labs that are recommended and available to the public.

- Suggested Lab Guides: <https://github.com/MicrosoftLearning/PL-900RU-Microsoft-Power-Platform-Fundamentals>

All lab guides can be found at this link: <https://github.com/MicrosoftLearning>

Exam Objectives

The following are the learning objectives for the exam. In line with each objective are links to Microsoft documentation around the specific concept or service. In addition to the documentation, there are also online courses from Microsoft Learn and the Microsoft Partner virtual training series available for additional learning resources.

Objective: Describe the Business Value of Power Platform (15-20%)

Describe the Business Value of Power Platform Services

- Analyze data by using Power BI
[Why Power BI](#)
- Act with Power Apps
[Build professional-grade apps the easy way](#)
- Build solutions that use Microsoft Dataverse
[What is Microsoft Dataverse?](#)
[Why choose Microsoft Dataverse?](#)
- Create flows by using Power Automate
[Creating flows using Power Automate](#)
- Use connectors to access services and data
[About Connectors](#)
- Create powerful chatbots by using a guided, no-code graphical interface
[Power Virtual Agents & Bot Framework – enabling everyone to build intelligent chatbots](#)

Describe the Business Value of Extending Business Solutions by Using Power Platform

- Describe how Dynamics 365 apps can accelerate delivery of Power Platform business solutions
- Describe how Power Platform business solutions can be used by Microsoft 365 apps including Microsoft Teams
[Microsoft Power Platform](#)
[Power Apps and Microsoft Teams integration](#)

- Describe how Power Platform business solutions can consume Microsoft 365 services
- Describe how Power Platform business solutions can consume Microsoft Azure services including Azure Cognitive Services
[Use Cognitive Services in Power Apps](#)
- Describe how Power Platform business solutions can consume third-party apps and services

Describe Power Platform Administration and Security

- Describe how Power Platform implements security including awareness of Microsoft Dataverse security roles, Azure Identity Services, and Access Management (IAM)
[Security concepts in Microsoft Dataverse](#)
[Security in Microsoft Dataverse](#)
[Governance considerations](#)
[Configure user security to resources in an environment](#)
- Describe how to manage apps and users
[Manage apps and users](#)
- Describe environments
[Environments overview](#)
[About environments](#)
[Working with environments and Microsoft Power Apps](#)
[Establishing an Environment Strategy for Microsoft Power Platform](#)
[Create and manage environments in the Power Apps Admin center](#)
- Describe where to perform specific administrative tasks including Power Platform Admin center, Microsoft 365 admin center
[Working with the admin portals](#)
[About admin roles](#)
[Assign admin roles](#)
[About the Microsoft 365 admin center](#)
- Describe Data Loss Prevention (DLP) policies
[Data loss prevention policies](#)
[Manage data loss prevention \(DLP\) policies](#)
[Create a data loss prevention \(DLP\) policy](#)
[New Data Loss Prevention capabilities in public preview](#)
- Describe how the platform supports privacy and accessibility guidelines
[Compliance and data privacy](#)
[PowerApps Canvas App Accessibility Guidelines](#)
[Making apps accessible](#)
[Create accessible canvas apps in Power Apps](#)

Objective: Identify the Core Components of Power Platform (15-20%)

Describe Microsoft Dataverse

- Describe the Power Apps user experience
[Create a canvas app from scratch using Microsoft Dataverse](#)
- Describe tables, columns, and relationships
[Identify tables and columns in Dataverse](#)
- Describe use cases for solutions
[Solutions overview](#)
- Describe use cases and limitations of business rules
[Apply business logic in Common Data Service](#)
[Create business rules and recommendations to apply logic in a model-driven app form](#)
- Describe the Common Data Model (CDM)
[How to use Common Data Model](#)
[Frequently asked questions about the Common Data Model](#)

- Describe how to use common standard tables to describe people, places, and things
[Tables and metadata in Microsoft Dataverse](#)

Describe Connectors

- Describe the native Dataverse connection experience
[Microsoft Dataverse and the improve data source experience](#)
- Describe triggers including trigger types and where triggers are used
[Get started with triggers](#)
- Describe actions
[Actions reference](#)
- Describe licensing options for connectors including standard or premium tier Identify use cases for custom connectors
[Licensing overview for Microsoft Power Platform](#)

Describe AI Builder

- Identify the business value of AI Builder
[What is AI Builder?](#)
[Introducing AI Builder for Power Platform](#)
- Describe models including business card reader, detection model, form processing model, and prediction model
[AI model types](#)
[Overview of the prediction model](#)
[Create a prediction model](#)
[Use your prediction model](#)
[Use the business card reader component in model-driven apps](#)
[Use the business card reader prebuilt model in Power Automate](#)
[Get started with object detection](#)
[Use the object detection model in Power Automate](#)
[Train and publish your object detection model](#)
- Describe how the Power Apps and Power Automate can consume AI Builder data
[AI Builder in Power Automate overview](#)
[AI Builder in Power Apps overview](#)

Objective: Demonstrate the Capabilities of Power BI (15-20%)

Identify Common Power BI Components

- Identify and describe uses for visualization controls including pie, bar, donut, and scatter plots and KPIs
[Visualizations in Power BI reports](#)
[Visualization types in Power BI](#)
[Customize visualization titles, backgrounds, and legends](#)
- Describe types of filters
[Types of filters in Power BI reports](#)
- Describe the Power BI Desktop Reports, Data, and Model tabs
[What is Power BI Desktop?](#)
[Get started with Power BI Desktop](#)
[Data sources in Power BI Desktop](#)
[Data types in Power BI Desktop](#)
[Use the updated ribbon in Power BI Desktop](#)
[Work with Modeling view in Power BI Desktop](#)
- Describe uses for custom visuals including charts or controls
[Create custom visuals for Power BI](#)
[Use custom controls for data visualizations](#)

[Tutorial: Developing a Power BI visual](#)
[Get a Power BI visual certified](#)
[How to govern Power BI visuals inside your organization](#)

Compare and Contrast Dashboards and Workspaces

- Compare and contrast Power BI Desktop and Power BI Service
[Comparing Power BI Desktop and the Power BI service](#)
- Compare and contrast dashboards, workspaces, and reports
[Organize work in the new workspaces in Power BI](#)
[Compare and contrast dashboards and reports](#)

Connect to and Consume Data

- Combine multiple data sources
[Combine data from multiple data sources \(Power Query\)](#)
[Tutorial: Shape and combine data in Power BI Desktop](#)
[Tutorial: Shape and combine data using Power Query](#)
- Clean and transform data
[Transform, shape, and model data in Power BI – documentation](#)
- Describe and implement aggregate functions
[Use aggregations in Power BI Desktop](#)
[Work with aggregates \(sum, average, and so on\) in the Power BI service](#)
- Identify available types of data sources including Microsoft Excel
[Find out which data sources are used in a workbook data model](#)
- Describe use cases for shared datasets and template apps and how to consume each
[What are Power BI template apps?](#)
[Shared and certified datasets](#)

Build a Basic Dashboard using Power BI

- Design a Power BI dashboard
[Introduction to dashboards for Power BI designers](#)
[Tips for designing a great Power BI dashboard](#)
[Create a Power BI dashboard from a report](#)
- Design data layout and mapping
[Tips for designing a great Power BI dashboard](#)
- Publish and share reports and dashboards
[Ways to collaborate and share in Power BI](#)
[Share Power BI dashboards and reports with coworkers and others](#)
[Publish datasets and reports from Power BI Desktop](#)
[Display the dashboards and reports that have been shared with me](#)

Objective: Demonstrate the Capabilities of Power Apps (15-20%)

Identify Common Power Apps Components

- Describe differences between canvas apps and model-driven apps
[Model Driven vs. Canvas PowerApps Major Differences](#)
- Describe portal apps
[Introducing PowerApps Portals: powerful low-code websites for external users](#)
[What is Power Apps portals?](#)
[Power Apps Portals](#)
[Power Apps portals FAQ](#)

- Identify and describe types of reusable components including canvas component libraries and Power Apps Component Framework (PCF) components
[Power Apps component framework overview](#)
- Describe use cases for formulas
[Get started with canvas-app formulas in Power Apps](#)

Build a Basic Canvas App

- Describe types of data sources
[Data types in canvas apps](#)
- Connect to data by using connectors
[Overview of canvas-app connectors for Power Apps](#)
[Connect to Common Data Service](#)
- Combine multiple data sources
- Use controls to design the user experience
[Use and understand Controls in a canvas app in Power Apps](#)
- Describe the customer journey
- Publish and share an app
[Save and publish a canvas app in Power Apps](#)
[Share a canvas app in Power Apps](#)

Describe Power Apps Portals

- Create a portal by using a template
[Create and manage page templates](#)
[Create a Common Data Service starter portal](#)
- Describe common portal customizations
[Overview of extending portals](#)
- Identify differences in portal behavior based on whether a user is authenticated
[Configure portal authentication](#)
[Set authentication identity for a portal](#)
- Apply a theme to a portal
[Overview of themes in Power Apps portals](#)
[Create a theme](#)
[Edit CSS for themes in Power Apps portal](#)

Build a Basic Model-Driven App

- Add tables to app navigation
[Basic navigation in a model-driven app](#)
[Build your first model-driven app from scratch](#)
- Modify forms and views
[Customize entity forms](#)
[Understand model-driven app views](#)
[Create a model-driven app quick view form to view information about a related entity](#)
[Create, edit, or configure forms using the form designer](#)
- Publish and share an app
[Share a model-driven app using Power Apps](#)
[Validate and publish a model-driven app using the app designer](#)

Objective: Demonstrate the Capabilities of Power Automate (15-20%)

Identify Common Power Automate Components

- Identify flow types
[Types of flows](#)
- Describe use cases for flows and available flow templates
[Exercise – Create your first flow](#)
- Describe how Power Automate uses connectors
[Manage connections in Power Automate](#)
- Describe loops and conditions including switch, do until, and apply to each
[Use the apply to each action in Power Automate to process a list of items periodically](#)
- Describe expressions
[Use expressions in flow actions](#)
- Describe approvals
[Create and test an approval workflow with Power Automate](#)

Build a Basic Flow

- Create a flow by using the button, automated, or scheduled flow template
[Run flows on a schedule](#)
[Introducing instant flows](#)
[Introducing button flows with user input](#)
[Create a flow in Power Automate](#)
[Create a flow from a template in Power Automate](#)
- Modify a flow
[Create a flow in Power Automate](#)
- Use flow controls to perform data operations
[Use data operations with Power Automate](#)
- Run a flow
- Modify a flow
[Watch your flows in action](#)
[Run attended and unattended UI flows](#)

Objective: Demonstrate the Capabilities of Power Virtual Agents (15-20%)

Describe Power Virtual Agents Capabilities

- Describe use cases for Power Virtual Agents
[Power Virtual Agents overview](#)
- Describe where you can publish chatbots
[Key Concepts – Publish your bot](#)
- Describe topics, entities and actions
[Key concepts – Enhanced authoring in Power Virtual Agents](#)
[Building a Crisis FAQ bot using Power Virtual Agents](#)
[Add actions to a bot using Power Automate](#)
- Describe message nodes, question nodes, conditions, trigger phrases, and the authoring canvas
- Identify common pre-built entities

Build and Publish a Basic Chatbot

- Create a chatbot
[Create your first Power Virtual Agents bot](#)
[Quickstart: Create and deploy a Power Virtual Agents bot](#)
- Create a topic
[Create and edit topics in your Power Virtual Agents bot](#)
[Create topics from existing support content on the web](#)

- Call an action
[Add actions to a bot using Power Automate](#)
- Test a chatbot
[Test your Power Virtual Agents bot](#)
- Publish a chatbot
[Key Concepts – Publish your bot](#)
- Monitor chatbot usage
[Analyze topic usage in Power Virtual Agents](#)
[Analyze customer satisfaction for Power Virtual Agents bots](#)
- Monitor chatbot performance
[Analyze bot performance and usage in Power Virtual Agents](#)

On-Demand Training from Microsoft Learn

New to the Power Platform? The learning path provides foundational knowledge of business value and product capabilities of Microsoft Power Platform. Create simple Power Apps, connect data with Microsoft Dataverse, build a Power BI Dashboard, automate a process with Power Automate, and build a chatbot with Power Virtual Agents.

[Microsoft Power Platform Fundamentals](#)

Virtual Training Series

This online course will help you learn about the components of Power Platform, ways to connect data, capabilities of Power Apps, and ways in which you can leverage this technology to build simple applications for business. We will also discuss how Common Data Service allows you to delve into powerful, scalable data solutions in the cloud, and how you can leverage Power Automate to improve business efficiency and productivity. Finally, you will learn how you can use Power BI to easily clean, display, and understand data to ensure businesses can make better informed decisions.

All Virtual Training Series <http://aka.ms/vts>