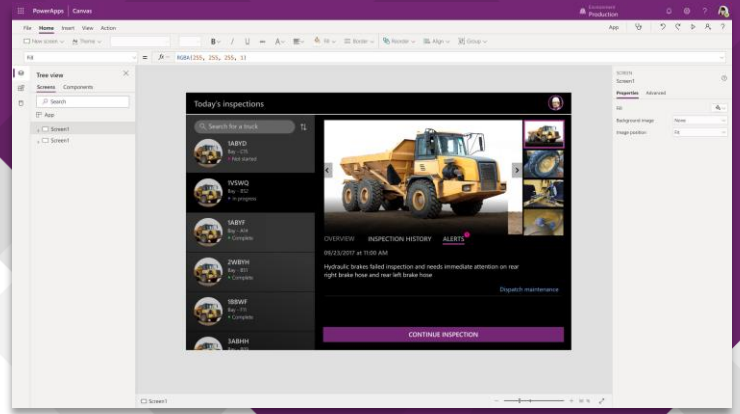




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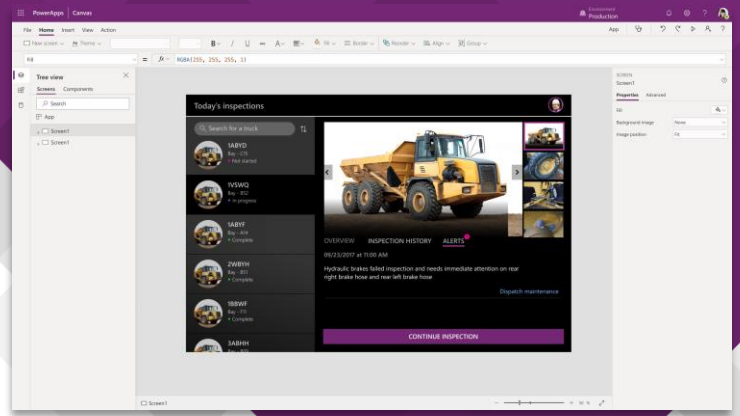
Training Modules

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Module 1: Overview of the PowerApps Platform

In this module, participants will learn the basics of PowerApps and how you can best use it in your organization. This module will show the different uses of the technology and how it can make your business more efficient by transforming manual processes into business applications. Understanding the different ways you can build on this platform and its capabilities to support integrations with different applications will lay the groundwork for you to start building your first application.

Topics Covered:

1. Overview of the PowerApps Platform
2. Understanding data source, connections, and data binding
3. Exploring PowerApps Studio and understanding controls
4. Customizing and building your PowerApps application
5. Creating template-based applications

Module 2: Connecting your Applications to Data Sources

With PowerApps, data can stay where it is.

In this module, participants will learn how to connect to different data sources. This module will teach the participants to use functions that allow collecting, filtering, sorting, and more to shape the data that will be displayed in PowerApps.

This module will also introduce the ability of PowerApps to connect to common data sources such as SharePoint lists to provide users with an enhanced user experience to manage the content of their database such as in SharePoint Online. It is important that participants understand how to build the user experience in a way that will help make adding, editing, and deleting items or data using forms and data cards seamless.

Topics Covered:

1. Using PowerApps with SharePoint
2. Customizing SharePoint list forms
3. Using Excel Workbook as data source for your application
4. Creating application from a blank canvas and from a data source
5. Using galleries, item templates, and working with forms
6. Using Table functions to filter, arrange, and sort data

Module 3: Creating Data-driven Applications

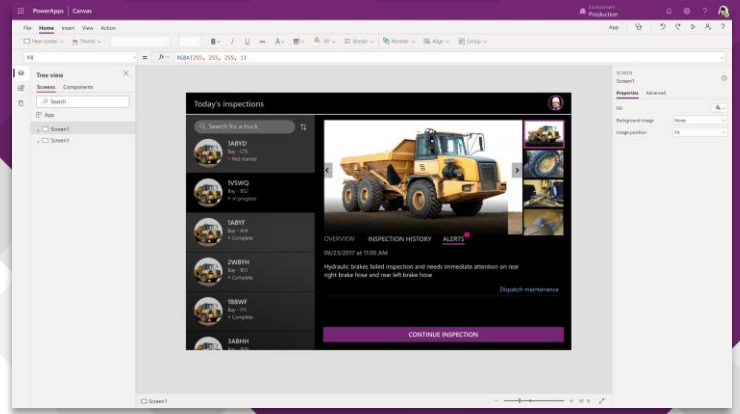
This module will teach participants how to improve functionality and change the behavior of the controls they add by using formulas. Participants will know how to track the application state using global and context variables and temporarily store data by using collections. This module will also show how to change and control formatting, position, properties, as well as implement conditional formatting.

Topics Covered:

1. Formulas Overview
2. Using collections and variables
3. Writing expressions and using functions for screen and control properties
4. Creating conditional formatting and validations
5. Functions for validating your data



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Module 4: PowerApps Platform Capabilities

As the world becomes more mobile, understanding the Microsoft PowerApps Platform capabilities allows participants to not only ensure seamless access from mobile devices, but also take advantage of controls that allow the end user to capture files and documents, images, barcodes, signatures, and more.

Topics Covered:

1. Utilize device native capabilities in your PowerApps application
2. Using the built-in camera, voice recorded, barcode scanner, and pen input control

Module 5: Getting Started with Microsoft Flow

This module is aimed at introducing Microsoft Flow to the participants to allow them to start integrating workflows in their applications. Attendees will learn how to build workflows that can be enabled using manual and automated triggers, schedules, or by an action in their PowerApps application.

This module will explain how the data within a flow is propagated from the trigger and actions that are added in the workflow as well as teach participants how to use these data to initiate an automated workflow.

Topics Covered:

1. Microsoft Flow Overview
2. Understanding connectors, triggers, and actions
3. Creating template-based workflows
4. Sending emails using PowerApps and Flow
5. Implementing basic approval workflows to your application
6. Using Microsoft Flow with your application

Module 6: Managing your PowerApps applications

This module is aimed at helping participants learn how to review and restore versions of their application, as well as how to share the application to a specific user, group, or everyone in the organization.

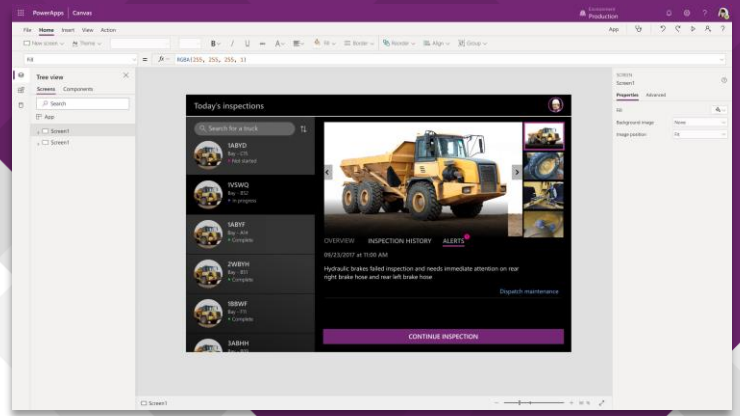
Finally, this module will also cover how to run PowerApps application on different platforms.

Topics Covered:

1. Managing app versions in PowerApps
2. Sharing apps in PowerApps
3. Saving, publishing, and co-authoring applications
4. Running PowerApps application on different platforms



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Module 7: Creating Reusable Components

Creating a better experience allows your application to be easy to use, seamless, and more efficient for your users. This requires your application to contain a seamless experience across all your screens, if you are delivering a set of apps to a specific organization, across all your applications.

In PowerApps, one way to build an appropriate experience for a specific function is by combining sets of controls. In this module, participants will be able to create reusable components that allow you to combine and create a custom control that you can reuse throughout your application as well as export it and share the same resource across multiple applications.

Topics Covered:

1. Designing reusable components
2. Adding custom input and output properties
3. Using your reusable components
4. Importing and exporting reusable components

Module 8: Adding Offline Capabilities to your PowerApps application

With PowerApps, you can provide an enhanced offline experience to your users. In this module, participants will learn how to integrate offline capabilities in their applications that allow their users to seamlessly work in offline mode on their mobile device when they don't have an internet connection.

In this module, participants will also learn how to create synchronization methods that allow data to be synchronized to their respective data sources once the user connects to the internet.

Topics Covered:

1. Managing what is accessible in offline mode
2. Integrating offline capabilities to the application
3. Adding online synchronization
4. Testing the application for offline mode

Module 9: Creating responsive applications

In creating PowerApps applications, the first decision you need to make is whether you want a layout that is tailored for a phone or a table, and often, this decision is linked to the business requirements or your target end users. This choice will determine the size and shape of the canvas you will work with while building your application. If an application that is designed for a phone is run in a large web browser on a desktop, it will be on portrait layout and will not take advantage of the additional space that can possibly show more controls and content.

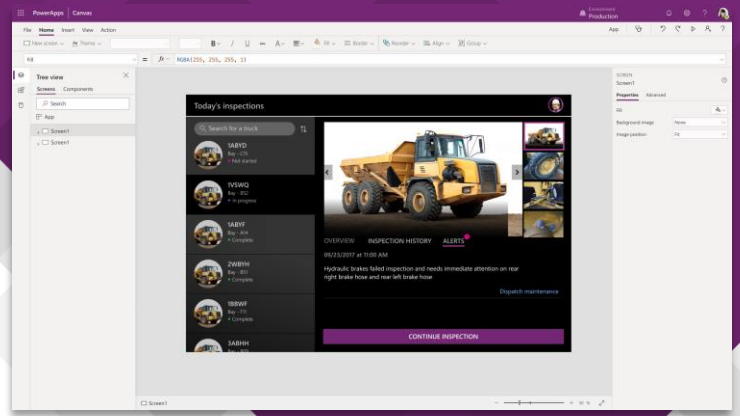
In this module, participants will learn how they can transform apps into a responsive experience by using expressions. Participants will learn how to write formulas that remove to the size of the screen and adapt the layout of each of your screens to the actual size of the app window in which the application is running.

Topics Covered:

1. Creating device responsive applications



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Module 10: Migrating your PowerApps application and workflows

One common scenario where you may want to migrate applications is where you have Test and Dev environment and a

Production environment. Another scenario is one where each customer has their own environment and you are sharing a general data source.

In this module, participants will learn how they can use applications across different organizations and environments by packaging their application and importing it to a new tenant.

Topics Covered:

1. Migrating PowerApps applications and connections to a new environment
2. Migrating Flows and connectors to a new environment

Module 11: Integrating with External Systems and Custom Connectors

In most cases, your data could be on the most common server and databases such as Excel, SharePoint Lists, and SQL Servers.

But in some cases, your data could be from an external system coming from an HTTP endpoint.

In this module, participants will learn how to build flows that can be triggered by using an HTTP endpoint as well as calling external services and parse JSON from an HTTP response. This module will introduce the participants to OpenAPI file definitions and learn how to use it.

Topics Covered:

1. Understanding custom connectors
2. Creating custom connectors
3. Calling external services and APIs using HTTP Action in Flow

Module 12: Connecting to On-premise Data Gateways

Many organizations still have and are likely to have legacy or on-premise databases which are used for critical operations within their business. Many of us know how fast everything went up into the cloud. Office 365 for example allows you to store files and documents to the cloud with SharePoint.

In some scenario, opting for a cloud data source is often not possible and your applications require you to connect to on-premise database and at the same time keep it mobile by allowing your application to run even outside your organization's network.

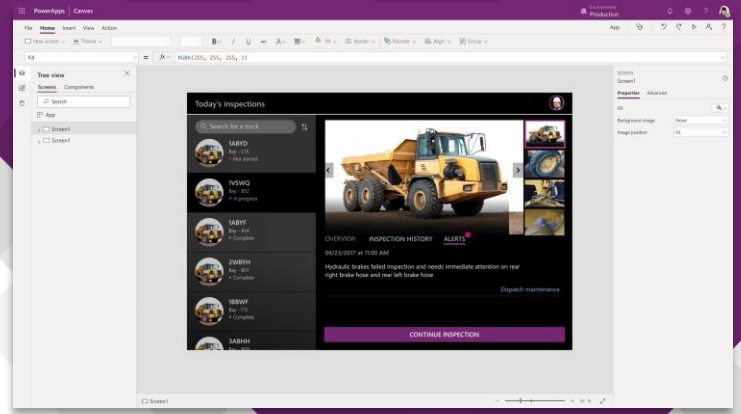
In this module, the participants will understand and learn how to install on-premise data gateways will be used to communicate with an on-premise database such as SQL Server possible and local SharePoint farm.

Topics Covered:

1. On-premise data gateways overview
2. Installing on-premise data gateways
3. Creating an on-premise data source connection
4. Using an on-premise database as a data source for your application



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1-day Training Agenda

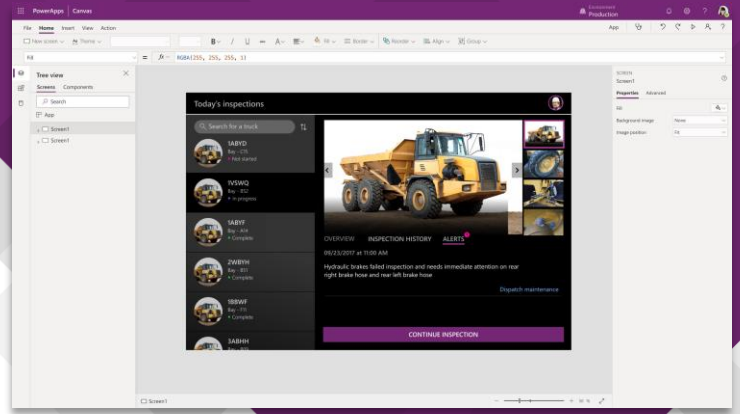
Training Outline

Day 1

- Module 1:** Overview of the PowerApps Platform
- Module 2:** Connecting your Applications to Data Sources
- Module 3:** Creating Data-driven Applications
- Module 4:** PowerApps Platform Capabilities
- Module 5:** Getting Started with Microsoft Flow
- Module 6:** Managing your PowerApps applications



Microsoft PowerApps + Flow Application & Workflow Development



3-day Training Agenda

Training Outline

Day 1

- Module 1:** Overview of the PowerApps Platform
- Module 2:** Connecting your Applications to Data Sources
- Module 3:** Creating Data-driven Applications
- Module 4:** PowerApps Platform Capabilities
- Module 5:** Getting Started with Microsoft Flow
- Module 6:** Managing your PowerApps applications

Day 2

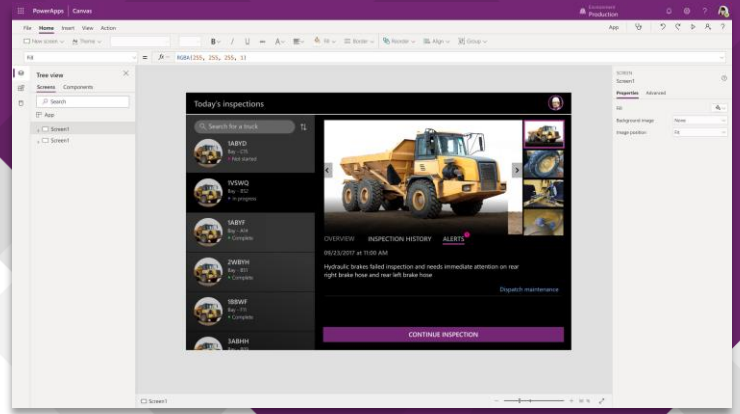
- Module 7:** Creating Reusable Components
- Module 8:** Adding Offline Capabilities to your PowerApps application
- Hands-on Training Exercises:** Creating your first PowerApps application

Day 3

- Module 9:** Creating responsive applications
- Module 10:** Migrating your PowerApps application and workflows
- Hands-on Training Exercises:** Optimizing your application and integrating complex workflows



Microsoft PowerApps + Flow Application & Workflow Development



5-day Training Agenda

Training Outline

Day 1

Module 1: Overview of the PowerApps Platform

Module 2: Connecting your Applications to Data Sources

Module 3: Creating Data-driven Applications

Module 4: PowerApps Platform Capabilities

Module 5: Getting Started with Microsoft Flow

Day 2

Module 7: Creating Reusable Components

Module 8: Adding Offline Capabilities to your PowerApps application

Hands-on Training Exercises: Creating your first PowerApps application

Day 3

Module 9: Creating responsive applications

Module 10: Migrating your PowerApps application and workflows

Hands-on Training Exercises: Optimizing your application and integrating complex workflows

Day 4

Module 11: Integrating with External Systems and Custom Connectors

Module 12: Connecting to On-premise Data Gateways

Hands-on Training Exercises: Using on-premise data gateways with your application and using Custom Connectors

Day 5

Module 13: Best practice in designing your PowerApps application

Hands-on Training Exercises: Creating device responsive applications