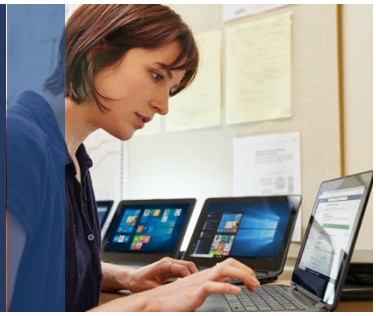
Microsoft

PL-400 Power Platform Developer

APPLIED WORKSHOP



Overview

In this workshop, you will create your own solution to the stated problems.

This workshop is open-ended by design. Use this time to practice what you need and don't be afraid to use your trainer for help when you get stuck.

You will need to evaluate the requirements, build the data model, apps, code components, and supporting automation to meet the requirements. Each scenario has requirements that are dependent on one another to offer the complete solution and may not be completed in the order presented here. As often as practical, make sure to reuse assets you have created.

If time allows, you will have a chance to share your solution with your peers for review and feedback.

Note: You are only completing one scenario. We've given you three to choose from. Review them and choose the one you'd like to build.

Scenario 1: Smart Home

Contoso Smart installs consumer smart home devices, they would like to create two applications. One application that will allow their office staff to create installation requests from their customers and a canvas application to be used by the installation technicians in the field.

Microsoft Dataverse requirements

- Create tables and columns for devices and installation requests.
- Create relationships for contacts, devices, and installation requests.
- Create needed forms and views.

Installation Request table columns

Column	Type	Requirement
Installation date	Date and time	Required
Installation comments	Multiple lines of text	Optional
Installation image	Image file	Optional
Contact	Lookup to contact table	Recommended

Installation status	Choice: Scheduled, In-Progress, and Completed	Scheduled as default
Installation technician	Lookup to user table	Recommended
Warranty type	Choice: Basic, Extended, and Lifetime	Basic as default

Device table columns

Column	**Type**	**Requirement**
Description	Single line of text	Optional
Device number	Auto-number with DV prefix and 4 digits	Read-Only
Photo	Image file. Use this as primary image	Optional

Relationships

Tables	**Type**	
Installation request to Contact	Many-to-one	
Installation request to Device	Many-to-many	
Installation request to User	Many-to-one	

Forms and Views

Build the appropriate forms and views for the data model you've just built and to be used in the model driven app described below.

- Decide what columns need to be on the forms and in what order, what columns do you need to add/remove from your views, consider what columns should be read-only, do you need to present related tables as sub-grids.
- Decide if you should you edit the default forms and views, should you create new from existing forms and views, or should you create them from scratch.

Model-driven application requirements

Compose a model-driven app that is appropriate for office staff to use to complete their needed tasks. Include tables, forms, views, and all needed components.

- Users should be able to add devices, create device install requests, manage contacts, and schedule installations.
- Create a plug-in that will prevent the creation of new installation requests if the contact has an incomplete installation. An incomplete installation is one that is currently scheduled or in-progress, but not yet completed.
- Add a command bar button that will allow users to complete installation requests (this might happen in the case of a customer completing a self-install of devices). This button must set the installation status to completed, decrement the quantity of all the devices that are included in the installation request, and set the status field value of the installation to inactive.
- Create a Power Apps component framework (PCF) control for a choice column that will show at least three options for warranty types, this control must show an image, label, and indicator for the selected choice. Warranty types are basic, extended and lifetime. This will be on the main form for the installation request table.

Canvas application requirements

Compose a canvas app that is appropriate for technicians to use in the field.

- Show list of active installation requests that are assigned to the technician.
- Show appointment and installation request details.
- The technician should be able to add comments and a photo to the installation assignment.
- Add a button that will allow technician to complete installation requests. This button must set the installation status to completed, decrement the quantity of all the devices that are related to the installation request, and set the status field value of the installation to inactive.

Scenario 2: Party decorations

Tailwind Traders install celebratory decorations for parties and holidays. They would like to create two applications. One application that will allow their office staff to create installation requests from their customers and a simple canvas application to be used by the party coordinators in the field.

Microsoft Dataverse requirements

- Create tables and columns for decorations and installation requests.
- Create relationships for contacts, decorations, and installation requests.
- Create needed forms and views.

Installation Request table columns

Column	**Type**	**Requirement**
Installation date	Date and time	Required
Installation comments	Multiple lines of text	Optional
Installation image	Image file	Optional
Contact	Lookup to contact table	Recommended

Installation status	Choice: Scheduled, In-Progress, and Completed	Scheduled as default
Party coordinator	Lookup to user table	Recommended
Decoration type	Choice: Indoor, Outdoor, and Indoor/Outdoor	Indoor as default

Decoration table columns

Column	**Type**	**Requirement**
Description	Single line of text	Optional
Decoration number	Auto-number with DC prefix and 4 digits	Read-Only
Photo	Image file. Use this as primary image	Optional

Relationships

Tables	**Type**	
Installation request to Contact	Many-to-one	
Installation request to Decoration	Many-to-many	
Installation request to User	Many-to-one	

Forms and Views

Build the appropriate forms and views for the data model you've just built and to be used in the model driven app described below.

- Decide what columns need to be on the forms and in what order, what columns do you need to add/remove from your views, consider what columns should be read-only, do you need to present related tables as sub-grids.
- Decide if you should you edit the default forms and views, should you create new from existing forms and views, or should you create them from scratch.

Model-driven application requirements

Compose a model-driven app that is appropriate for office staff to use to complete their needed tasks. Include tables, forms, views, and all needed components.

- Users should be able to add decorations, create decoration install requests, manage contacts, and schedule installations.
- Create a plug-in that will prevent the creation of new installation requests if the contact has an incomplete installation. An incomplete installation is one that is currently scheduled or in-progress, but not completed.
- Add a command bar button that will allow users to complete installation requests (this might happen in the case of a customer completing a self-install of decorations). This button must set the installation status to completed, decrement the quantity of all the decorations that are included in the installation request, and set the status field value of the installation to inactive.
- Power Apps component framework (PCF)control for a choice column that will show at least three options for decoration types, this control must show an image, label, and indicator for the selected option. Decoration types are indoor only, outdoor only, indoor/outdoor. This will be on the main form for the installation request table.
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Canvas application requirements

Compose a canvas app that is appropriate for technicians to use in the field.

- Show list of active installation requests that are assigned to the party coordinators.
- Show appointment and installation request details.
- The party coordinator should be able to add comments and a photo to the installation assignment.
- Add a button that will allow party coordinators to complete installation requests. This button must set the installation status to completed, decrement the quantity of all the decorations that are related to the installation request, and set the status field value of the installation to inactive.

Scenario 3: Rent plants

Northwind Traders rents and maintains live plants for offices, they would like to create two applications. One application that will allow their office staff to create installation requests from their customers and a simple canvas application to be used by the plant experts in the field.

Microsoft Dataverse requirements

- Create tables and columns for plants and installation requests.
- Create relationships for contacts, plants, and installation requests.
- Create needed forms and views.

Installation Request table columns

Column	Type	Requirement
Installation date	Date and time	Required
Installation comments	Multiple lines of text	Optional
Installation image	Image file	Optional
Contact	Lookup to contact table	Recommended

Installation status	Choice: Scheduled, In-Progress, and Completed	Scheduled as default
Plant specialist	Lookup to user table	Recommended
Decoration type	Choice: Plants only, Plants and fresh flowers, and Plants with services	Plants only as default

Plant table columns

Column	**Type**	**Requirement**
Description	Single line of text	Optional
Plant number	Auto-number with PL prefix and 4 digits	Read-Only
Photo	Image file. Use this as primary image	Optional

Relationships

Tables	**Type**	
Installation request to Contact	Many-to-one	
Installation request to Plant	Many-to-many	
Installation request to User	Many-to-one	

Forms and Views

Build the appropriate forms and views for the data model you've just built and to be used in the model driven app described below.

- Decide what columns need to be on the forms and in what order, what columns do you need to add/remove from your views, consider what columns should be read-only, do you need to present related tables as sub-grids.
- Decide if you should you edit the default forms and views, should you create new from existing forms and views, or should you create them from scratch.

Model-driven application requirements

Compose a model-driven app that is appropriate for office staff to use to complete their needed tasks. Include tables, forms, views, and all needed components.

- Users should be able to add plants, create plants install requests, manage contacts, and schedule installations.
- Create a plug-in that will prevent the creation of new installation requests if the contact has an incomplete installation. An incomplete installation is one that is currently scheduled or in-progress, but not yet completed.
- Add a command bar button that will allow users to complete installation requests (this might happen in the case of a customer completing a self-install of plants). This button must set the installation status to completed, decrement the quantity of all the plants that are included in the installation request, and set the status field value of the installation to inactive.
- Power Apps component framework (PCF) control for a choice column that will show at least three options for plan types, this control must show an image, label, and indicator for the selected option. Available plans are plants only; plants and fresh flowers; and plants with service (watering, fertilizer, etc.). This will be on the main form for the installation request table.

Canvas application requirements

Compose a canvas app that is appropriate for plant experts to use in the field.

- Show list of active installation requests that are assigned to the expert.
- Show appointment and installation request details.
- The expert should be able to add comments and a photo to the installation assignment.
- Add a button that will allow experts to complete installation requests. This button must set the installation status to completed, decrement the quantity of all the plants that are related to the installation request, and set the status field value of the installation to inactive.

Time management

You have a day to complete all aspects of this assignment. Review all the expectations first, then begin to manage your time. Phase 1 is designed to be a small group discussion, however if you are working solo then take the time to brainstorm on your own to help you with the rest of the assignment. Most of your time should be spent in Phases 2 and 3. Your instructor will let you know when to start Phase 4, but plan for it to take about 30 minutes of your time.

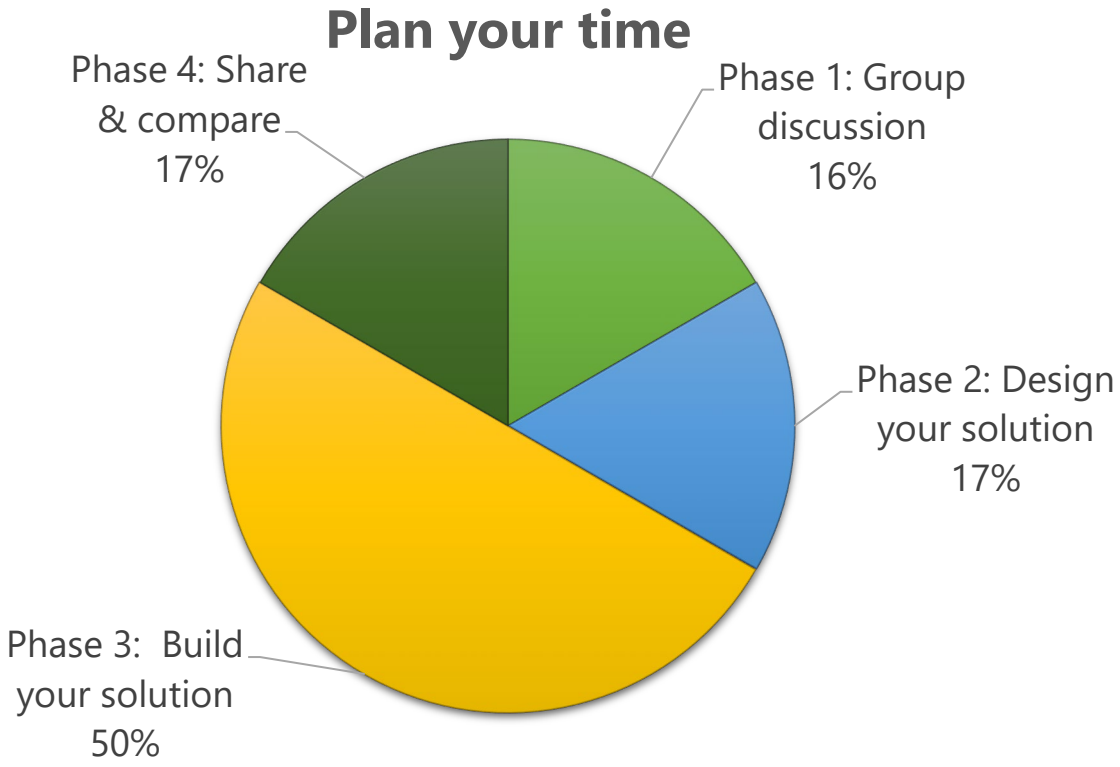
Plan for the following:

Phase 1: Small group discussion

Phase 2: Design your solution

Phase 3: Build your solution

Phase 4: Share and compare your solutions



Phase 1: Small group discussion

Discuss with your small group the idea of building the solution. Have a brainstorming session about how you might approach the requirements.

Discussion points

- Which scenario did you choose?
- Do you know what you need to build?
- Are any planned assets reusable?
- Are there any distractors or irrelevant information offered?

Phase 2: Design your solution

Now you should plan how you will approach the solution. Put pen to paper (or digital, or whatever works for you) and make your to-do list.

Considerations

- Will you make a standard or activity table?
- Will you repurpose any standard Dataverse tables?
- How can you incrementally build and test?

Phase 3: Build your solution

Time to make your solution.

Considerations

- Do you have the information needed to complete the required elements?

Phase 4: Share and compare your solution

Share your solution with your small group. Compare the experience. Can you export your solution and import it to another environment.

Considerations

- How do others' solutions compare to yours? What is similar? What is different?
- How would you improve upon your solution?
- What did you learn?