

PL-400T00: Power Platform Developer

Trainer Preparation Guide

Required Materials to Teach This Course

To teach this course, you need the following materials:

- Microsoft PowerPoint files
- Student manual
- Student lab manuals (for more details, please see Lab Specification Guide and Lab Topic & Discussion Guide)

Prerequisite Knowledge to Teach This Course

To successfully teach these courses, instructors must have experience leveraging the following:

- The Power Platform (including PowerApps, Power BI, Power Automate, Power Virtual Agents, and AI Builder)
- Development experience that includes Power Platform services, JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful web services, ASP.NET, and Microsoft Power BI.

We strongly recommend that instructors Acquire PL-400 Certification before teaching this course.

Preparation Tasks

Instructors should complete the following tasks to prepare for each of the courses in the Power Platform (PL) series:

- Review all topics in the student manual. You should be well-versed in every topic.
- Review all PowerPoint slides and make notes to match your specific teaching style. Add notes in the notes pane where necessary.
- Be able to speak to each of the talking points or graphics on the slides. Be aware of the topic in the Student Manual that each slide aligns to.
- Not only should you review the labs, but you should be able to successfully complete them so that you become familiar with any of the difficult points. This will prepare you for helping students in class.

Course Timing

This course is expected to take 5 full (8 hour) days, including labs (with breaks taken into consideration). We appreciate any feedback you can provide about timing considerations or scheduling changes that emerge during a live course.

Agenda

#	Module	Lessons
1	Create a model-driven application in Power Apps	Introduction to model-driven apps and Common Data Service
		Get started with model-driven apps in Power Apps
		Create and manage entities in Common Data Service
		Create and manage fields within an entity in Common Data Service
		Working with option sets in Common Data Service
		Create a relationship between entities in Common Data Service
		Define and create business rules in Common Data Service
		Create and define calculation or rollup fields in Common Data Service
		Get started with security roles in Common Data Service
2	Create a canvas app in Power Apps	Get started with Power Apps
		Customize a canvas app in Power Apps
		Manage apps in Power Apps
		Navigation in a canvas app in Power Apps
		How to build the UI in a canvas app in Power Apps
		Use and understand Controls in a canvas app in Power Apps
		Document and test your Power Apps application
3	Master advance techniques and data options in canvas apps	Use imperative development techniques for canvas apps in Power Apps
		Author an advanced formula that uses tables, records, and collections in a canvas app in Power Apps
		Perform custom updates in a Power Apps canvas app
		Complete testing and performance checks in a Power Apps canvas app
		Work with relational data in a Power Apps canvas app
		Work with data source limits (delegation limits) in a Power Apps canvas app
		Connecting to other data in a Power Apps canvas app
		Use custom connectors in a Power Apps canvas app
4	Automate a business process using Power Automate	Get started with Power Automate
		Build more complex flows with Power Automate

		Introduction to business process flows in Power Automate
		Create an immersive business process flow in Power Automate
		Understand advanced business process flow concepts in Power Automate
		Introduction to expressions in Power Automate
5	Introduction to developing with Power Platform	Introduction to Power Platform developer resources
		Use developer tools to extend the Power Platform
		Introduction to extending the Microsoft Power Platform
6	Extending the Power Platform Common Data Service	Introduction to Common Data Service for developers
		Extend plug-ins
7	Extending the Power Platform user experience Model Driven apps	Introduction to web resources
		Performing common actions with client script
		Automate business process flows with client script
8	Create components with Power Apps Component Framework	Get started with Power Apps component framework
		Build a Power Apps component
		Use advanced features with Power Apps component framework
9	Extend Power Apps portals	Access Common Data Service in Power Apps portals
		Extend Power Apps portals
		Build custom Power Apps portals web templates
10	Integrate with Power Platform and Common Data Service	Work with Common Data Service Web API
		Integrate Common Data Service Azure solutions

Lab Specification Guide

The PL-400 course provides a set of lab instructions hosted publicly on GitHub. These labs align with the content of certain modules within the course. Based on timing necessities or your own teaching preferences, you may choose to introduce to different parts of the course and teach the labs at different points.

Lab Credentials

Almost all steps in the labs are performed in the Power Platform tenants that learners acquire through the lab hosting agent. Since the labs are tenant-based and those tenants update each month, it is possible that some of the lab instructions become out of sync with the updated tenant. While we try to update the lab instructions regularly, be aware of this possibility.

Each student should be supplied with the following through the hosting agent:

- A blank virtual machine (if they choose to, they can forgo the virtual machine after acquiring the credentials and work in a browser on their local machine)
- An M365 credential, which they will use to acquire a Power Platform trial as instructed in LAB00 in Github repository.

Students should record these credentials upon their receipt, complete LAB00 on Day 1 and continue using the same credentials throughout the duration of the course.

Lab Demos

To build a demo environment, you could complete the labs as a student would and use those as examples as needed for your demos.

Lab Manuals

Student lab manuals are hosted on the public [GitHub repository](#) for PL-400 in Markdown format. Due to the dynamic nature of the products, we expect that the user experience of the technology will not always match the lab instructions perfectly. We encourage MCTs to contribute to the lab manuals when a bug is noticed during course facilitation by creating a Pull Request.

Students can access the lab manuals using the more user-friendly [GitHub pages](#) feature. MCTs can distribute this link to students at their convenience. Please be aware that authorized lab hosters will often surface our lab instructions within their own user interface. These instructions are surfaced from a dynamic pull from our GitHub repositories, so they should always remain current with our GitHub site.

Lab Issues

For issues where the user experience does not match the lab instructions (ie., buttons changed, placement of links changed, process changes), please raise the issue in the **Issues** section of the GitHub site. This will allow our content development team to make updates for the next course.

For issues with the hosting platform or the tenant, please raise an issue directly with the support team of the Authorized Lab Hoster.

Teaching tips and recommendations

- We require students to have introductory knowledge of Microsoft Power Platform before taking this course. We expect this knowledge to vary from one learner to another, therefore, we created modules 1, 2 and 4 to cover any gaps students may have before diving into extending the platform. However, please be mindful of the timing, we don't recommend spending more than 1-2 days on these modules.
- In our beta teach, the students preferred that we use less slides than we have originally created. We have kept the same number of slides as a reference for the instructor, but we strongly recommend that the instructor uses more demo and less slides when teaching the course.
- The student manual in this course is meant to be the e-book version of the content where we keep extra exercises resources, links and videos as references for the students that are valuable to cover certification exam topics.