

PL-400

Microsoft Power Platform Solution Developer

The Microsoft Power Platform helps organizations optimize their operations by simplifying, automating and transforming business tasks and processes. In this course, students will learn how to build Power Apps, Automate Flows and extend the platform to complete business requirements and solve complex business problems.

Duration: 5 Days (40 hours)

Prerequisites: Candidates should have an introductory knowledge of Power Platform. Candidates should have development experience that includes JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI

Audience Profile: Candidates for this course design, develop, secure, and troubleshoot Power Platform solutions. Candidates implement components of a solution that include application enhancements, custom user experience, system integrations, data conversions, custom process automation, and custom visualizations. Candidates will gain applied knowledge of Power Platform services, including in-depth understanding of capabilities, boundaries, and constraints. Candidates should have development experience that includes JavaScript, JSON, TypeScript, C#, HTML, .NET, Microsoft Azure, Microsoft 365, RESTful Web Services, ASP.NET, and Power BI.

Day	Learning Path	Module	Labs
Day 1	1. Work with Microsoft Dataverse	1. Introduction to Microsoft Dataverse 2. Manage environments 3. Manage customizations with solutions 4. Create and manage tables in Microsoft Dataverse 5. Create and manage columns in Microsoft Dataverse 6. Create relationships between tables in Dataverse 7. Create and define calculated and rollup columns in Dataverse 8. Define and create business rules in Microsoft Dataverse 9. Manage security in Microsoft Dataverse	Lab 0: Validate lab environment Lab 1: Data modelling
Day 1	2. Create model driven apps	1. Get started with model-driven apps 2. Configure forms 3. Configure views 4. Command bar	Lab 2: Model-driven apps
Day 2	3. Create canvas apps	1. Get started with Power Apps 2. Understanding Low Code as a 3. Traditional Developer 4. Customize a canvas app in Power Apps 5. Navigation in a canvas app in 6. Power Apps Power Fx formulas 7. Canvas components 8. Document and test your Power Apps application	Lab 3: Canvas app
Day	Learning Path	Module	Labs
Day 2	4. Advanced techniques in canvas apps	1. Use imperative development techniques for canvas apps 2. Perform custom updates in a canvas app 3. Use Dataverse choice columns with formulas	Lab 4: Advanced canvas app techniques

		<ul style="list-style-type: none"> 4. Work with relational data in a canvas app 5. Work with data source limits (delegation limits) in a canvas app 6. Performance in canvas apps 	
Day 2	5. Automate a business process using Power Automate	<ul style="list-style-type: none"> 1. Get started with Power Automate 2. Introduction to expressions in Power Automate 3. Use Dataverse triggers and actions in Power Automate Advanced features of cloud flows 	Lab 5: Power Automate
Day 2	6. Introduction to developing with Power Platform	<ul style="list-style-type: none"> 1. Introduction to Microsoft Power 2. Platform developer resources 3. Use developer tools to extend 4. Microsoft Power Platform 5. Introduction to extending 6. Microsoft Power Platform 7. Work with Dataverse APIs 	Lab 6: Power Platform tools Lab 7: Power Platform APIs
Day 3	7. Extending the model-driven apps user experience	<ul style="list-style-type: none"> 1. Performing common actions with client script 2. Best practices with client script 	Lab 8: Client scripting
Day 3	8. Create code components with the Power Apps Component Framework	<ul style="list-style-type: none"> 1. Get started with Power Apps component framework 	Lab 9: Power Apps Component Framework (Optional)
Day 3	9. Extending Microsoft Dataverse	<ul style="list-style-type: none"> 1. Introduction to Dataverse for developers Create plug-ins 	Lab 10: Dataverse Plug-ins
Day 4	10. Integrate with Dataverse and Azure	<ul style="list-style-type: none"> 1. Integrate with Azure 2. Integrate with Dataverse 	Lab 11: Azure Functions (Optional) Lab 12: Publishing events externally
Day 4	11. Custom Connectors	<ul style="list-style-type: none"> 1. Get started with custom connectors in Power Automate 	Lab 13: Custom connector (Optional)
Day 4	12. Application lifecycle management	<ul style="list-style-type: none"> 1. Solutions and Application Lifecycle Management 	
Day 4	13. Create a Technical Design (Optional)	<ul style="list-style-type: none"> 1. Technical architecture 	

Day 5	Workshop	1. Applied workshop	
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Lab Timing

Labs are divided by module. The PowerPoint slides indicate when labs should be performed. Some labs are optional to allow time for applied workshop at the end of the course.

LP	Lab	Lab Title	Duration
0	0	Validate lab environment	60
1	1	Data modeling	60
2	2	Model-driven app	60
3	3	Canvas app	30
4	4	Advanced canvas app techniques	30
5	5	Power Automate	45
6	6	Power Platform tools	60
6	7	Power Platform APIs	60
7	8	Client scripting	90
8	9	Power Apps Component Framework (Optional)	120
9	10	Dataverse Plug-ins	120
10	11	Azure Functions (Optional)	120
10	12	Publishing events externally	30
11	13	Custom connector (Optional)	60

Applied Workshop

The Applied Workshop should take up this entire fifth day. Note that if you wish to not deliver the workshop, you can remove this day and reinstate the optional labs.

Labs

The labs must be completed within the lab environment provided by your lab hosting provider. Detailed, step-by-step instructions are provided for each lab and presented as part of the UI experience within your lab environment.