

[Microsoft Power Platform for Developers \(55384AC\)](#)

Module 1: Introduction to Power Platform Development

Lessons

- The Microsoft Power Platform Overview
- App Makers Vs Pro Developers
- Pro Code Developer Options
- Development Tools
- The Customer Engagement Toolkit
- Environments and Solutions
- Security Considerations
- Application Lifecycle Management
- Valuable Skills
- Further reading and resources

Lab 1: Setting up your Lab Environment

- Set up a trial of the Microsoft Power Platform
- Install Sample Data

Lab 2: Developer Orientation

- Review the Developer Resources
- Review the Lab Files

Review the Customer Engagement Toolkit

Module 2: Working with the Data verse using the API

Lessons

- Introduction to API programming
- Authentication Considerations
- The Web API
- The Discovery Web Service
- The Organization Web Service
- Core Assemblies
- Early and Late-bound classes
- The Code Generation Tool
- Service Context
- CRUD Operations
- Using the Query Expression Class
- Using LINQ

Lab 1: Using the Web API with Server-side code to connect to CDS

- Set up the Visual Studio Project

- Develop an App to perform operations using Web API Server-side code
- Connect to the Data verse
- Test your App

Lab 2: Using the Organization service with Server-side code to connect to CDS

- Set up the Visual Studio Project
- Develop an App to perform operations using the Organization's service
- Connect to the Data verse
- Test your App

Lab 3: Using the Web API with Client-side code to connect to CDS

- Set up the Visual Studio Project
- Develop an App to perform operations using Web API Client-side code
- Connect to the Data verse
- Test your App

Module 3: Developing Client-side Code

Lessons

- Introduction to Client-side coding
- The Client-side Events
- The Client API Object Model
- Using Web resources

Lab 1: Writing a JavaScript Event Handler

- Write a JavaScript Function
- Create a JavaScript Web Resource
- Configure the Event Handler
- Test your JavaScript Code

Module 4: Developing Plug-Ins

Lessons

- Introduction to Plug-Ins
- Writing Plug-In Code
- Using the Plug-In Registration Tool
- Debugging Plug-Ins with the Plug-In Profiler
- Deploying Plug-Ins with Solutions

Lab 1: Create and deploy a Plug-In

- Customize a Model-driven App
- Set up your Visual Studio Project
- Create a Plug-In

- Sign and Build the Assembly
- Deploy a Plug-In using the Plug-In Registration Tool
- Test your Plug-In
- Debug Plug-In code using the Plug-In Profiler Tool

Module 5: Developing Custom Workflow Activities

Lessons

- Introduction to Custom Workflow Activities
- Writing Custom Workflow Activity code
- Deploying a Custom Workflow Activity

Lab 1: Create a Custom Workflow Activity

- Set up the Visual Studio Project
- Create a Custom Workflow Activity
- Sign and Build the Assembly
- Deploy a Custom Workflow Activity
- Create a Workflow
- Test your Custom Workflow Activity

Module 6: Extending PowerApps

Lessons

- Introduction Custom Controls
- Extending Model-driven Apps with Canvas Apps
- Embedding Canvas Apps as Custom Controls

Lab 1: Create a Canvas App and embed it into a Model-driven App

- Create Canvas Apps
- Create Model-driven App
- Embed Canvas App into Model-driven App as a Component
- Test your App

Module 7: The PowerApps Component Framework (PCF)

Lessons

- Introduction to PCF
- The PCF Command Line Interface (CLI)
- Creating PCF Components
- The PCF Test Environment
- Deploying PCF Components in a Model-driven App

Lab 1: Create and deploy a PCF Control

- Install the Power Apps CLI
- Create your PCF control
- Packing PCF Components in Solutions
- Deploy a PCF Component
- Test your control

Module 8: Developing Custom Connectors

Lessons

- Connectors Overview
- Custom Connectors
- Process to create a Custom Connector

Lab 1: Create a Custom Connector

- Set up Visual Studio
- Register an App in Azure
- Create a Custom Connector
- Test your Connector in a Canvas App
- Sharing your Connector

Module 9: Application Lifecycle Management (ALM)

Lessons

- Introduction to ALM
- Environments and Solution Management
- Microsoft Power Platform Build Tools
- The Power Apps Center of Excellence

