

Advanced Power Apps Development with AI Builder and Model-Driven Apps

Target Audience

This course is designed for Power Platform developers, business application developers, IT professionals, and citizen developers who want to build advanced business applications using Microsoft Power Apps. It is ideal for learners who want to enhance Power Apps with AI Builder models, Power Apps cards, command bar customization, and model-driven app development using Dataverse.

Course Objective

The objective of this course is to provide participants with the knowledge and practical skills required to design, build, and manage advanced Power Apps solutions. Participants will learn how to integrate AI Builder models, create and use Power Apps cards, customize command bars, and build model-driven apps using virtual data tables.

Course Outcome

Upon successful completion of this course, participants will be able to:

- Use AI Builder models in Power Apps to enhance application intelligence
- Design and implement Power Apps cards for lightweight app experiences
- Customize the command bar in Power Apps to improve user productivity
- Build and configure model-driven apps using Dataverse and virtual tables
- Deploy, manage, and maintain advanced Power Apps solutions

Course Outline: The course comprises **40 hours** of theory and practical labs and is divided into 10 comprehensive chapters. Each chapter will be followed by hands-on lab exercises to reinforce learning and gauge understanding of the topics covered.

Module 1: Overview of Advanced Power Apps Capabilities

Topics

- Overview of Microsoft Power Platform
- Power Apps architecture and components
- Canvas apps vs model-driven apps
- Dataverse overview

- Extending Power Apps with AI and customization

Lab

- Explore advanced Power Apps features
- Review sample canvas and model-driven apps

Module 2: Introduction to AI Builder in Power Apps

Topics

- Power Automate Desktop interface
- Overview of AI Builder
- AI Builder model types
- Licensing and prerequisites
- Use cases for AI in Power Apps

Lab

- Explore AI Builder models
- Prepare an app for AI integration

Module 3: Using AI Builder Models in Power Apps

Topics

- Integrating AI Builder models in canvas apps
- Configuring AI model inputs and outputs
- Displaying AI results in apps
- Handling AI predictions in app logic

Lab

- Use an AI Builder model in a canvas app
- Display AI output to users

Module 4: Advanced AI Builder Scenarios

Topics

- Using AI Builder with Power Fx formulas
- Conditional logic using AI results
- Performance and cost considerations
- AI governance and best practices

Lab

- Enhance an app using AI-driven business logic

Module 5: Introduction to Power Apps Cards

Topics

- Overview of Power Apps cards
- Card-based app concepts
- Use cases for cards
- Card lifecycle and limitations

Lab

- Create a Power Apps card
- Configure card properties

Module 6: Designing and Using Power Apps Cards

Topics

- Integrating cards with Power Apps
- Using cards in Microsoft Teams and Outlook
- Data interaction with cards
- Best practices for card design

Lab

- Use a Power Apps card in a business scenario

Module 7: Advanced Command Bar Customization

Topics

- Command bar overview
- Customizing command bars
- Adding and configuring commands
- Using Power Fx in command actions

Lab

- Customize command bar actions in a Power Apps app

Module 8: Customizing the Command Bar in Power Apps

Topics

- Conditional visibility of commands
- Role-based access to commands
- Command bar performance considerations
- Best practices for customization

Lab

- Implement conditional command bar behavior

Module 9: Introduction to Model-Driven Apps and Dataverse

Topics

- Model-driven app concepts
- Dataverse tables and relationships
- Forms, views, and dashboards
- Virtual tables overview

Lab

- Explore model-driven app components

Module 10: Building Model-Driven Apps Using Virtual Health Data Tables

Topics

- Virtual health data tables overview
- Healthcare data model concepts
- Configuring virtual tables
- Building model-driven apps using virtual data

Lab

- Build a model-driven app using virtual health data tables