Faysal Aziz

Microsoft Power Apps for Advanced Users

Formulas, integration and maintainable solutions

FA-0645

Automation, RPA & Power Platform

Extend Power Apps with richer formulas, validation and integration while reviewing delegation, testing and solution lifecycle constraints.

Introduction

This course is for experienced Power Apps makers who already build custom business applications. It develops formula logic, interface customisation, validation, external-data integration and maintainable solution practices.

Exercises extend one prepared application and use a controlled external-data/API example. Canvas and model-driven features are distinguished where relevant; availability depends on the selected app type, connector, environment policy and licensing. Duration is not stated in the source and is not invented.

Learning outcomes

The course teaches participants to:

- Use richer Power Fx formulas and conditional logic for a defined application requirement.
- Customise supported controls, views or dashboards for the selected app type.
- Apply input validation without treating it as a substitute for backend integrity controls.
- Connect to an authorised data source and inspect a small custom connector.
- Recognise delegation, query and service limits that affect completeness and performance.
- Review solutions, environment separation, source control and testing practices.
- Evaluate a bounded synchronisation/API scenario and its error, permission and consistency requirements.

Prerequisites

Practical experience building Power Apps applications, including the following:

- Data modelling and table relationships.
- Form and screen design
- Basic formulas and expressions
- Data validation and conditional logic
- Power Apps connectors and data sources

Familiarity with logic, functions and expressions; equivalent foundational Power Apps experience is sufficient without requiring a named prior course.

An authorised training environment with the selected connectors, app/data permissions and any required licences; supplied non-confidential sample data and a prepared API are used.

Training outline

1. Advanced Formulas and Expressions

- Power Fx formulas appropriate to the selected canvas/model-driven scenario.
- Data manipulation with explicit type, error and delegation checks.
- Implementing conditional logic

2. Controls, Views and Validation

- Customizing the appearance and behavior of controls
- Custom views/dashboards where supported; distinguish model-driven features from canvas controls.
- Validation and conditional presentation; enforce data integrity at the appropriate backend boundary.

3. Data Integration and Connectors

- Use supported connectors with appropriate permissions, environment policies and licensing.
- Inspect or implement one small custom connector for a supplied API; recognise authentication and API-definition requirements.
- Review delegable queries, retrieval limits and measurement before claiming performance improvements.

4. Maintainable Solution Design

- Solutions, environment boundaries, data ownership and understandable architecture.
- Source-control and solution export/import practices supported by the selected components/tooling; not every artefact has identical lifecycle support.
- Selected tests and debugging/troubleshooting, including formula, connector and data-boundary failures.

5. Advanced Integration Scenarios

- One prepared Microsoft or third-party integration example; connector availability is not a guarantee of interoperability.
- A bounded synchronisation example with consistency, duplicate/error and service-limit considerations; replication is not automatic or universal.
- Custom API/web-service concepts and a small supplied endpoint; no full backend platform is built from scratch.

Assessment

Quizzes and scenario assignments check understanding. A bounded final project extends one prepared application with selected formula, validation and external-data features, followed by a review of tests, permissions, delegation and unresolved constraints.

© 2026 Faysal Aziz · Kuala Lumpur