

# Mastering Power Automate and Power Apps Integration

## Course Description

In this course, you'll learn how to integrate Power Apps and Power Automate to build custom business solutions. You'll explore advanced techniques for optimizing workflows and automating processes, with a focus on building custom solutions tailored to your specific business needs.

## Audience

This course is ideal for business professionals, IT professionals, and developers who want to learn how to leverage Power Apps and Power Automate for workflow automation and business process optimization.

## Pre-requisite Knowledge/Skills

Participants should have basic knowledge of Power Apps and Power Automate, as well as experience with workflow automation and business process optimization. Familiarity with Microsoft Office 365 and cloud-based applications is also recommended.

## Course Objectives

By the end of this course, participants will be able to:

- Develop custom business solutions using Power Apps and Power Automate integration.
- Automate complex workflows and optimize business processes.
- Implement advanced techniques for workflow optimization, including conditional logic, branching, and parallel processing.
- Integrate Power Apps and Power Automate with external systems and data sources.
- Build custom connectors to extend the functionality of Power Apps and Power Automate.

## Course Outline

The course comprises 24-hours of theory and labs. It's divided into 8 different modules.

### Module 1: Introduction to Power Apps and Power Automate Integration

- Overview of Power Apps and Power Automate
- Benefits of Integration
- Types of Integration

### Module 2: Building Custom Connectors

- Introduction to Custom Connectors

- Creating Custom Connectors
- Configuring Custom Connectors
- Testing Custom Connectors

### Module 3: Triggers and Actions in Power Automate

- Trigger Conditions
- Parallelism and Concurrency
- Error Handling Techniques
- Batch Processing

### Module 4: Using Power Apps with Power Automate

- Using Power Automate with Power Apps
- Creating Flows in Power Automate for Power Apps
- Common Scenarios for Power Apps and Power Automate Integration
- Building Custom Connectors for Power Apps

### Module 5: Designing Effective Power Apps

- Best Practices for Designing Power Apps
- Data Sources and Connectors
- User Interface Design
- Security and Permissions

### Module 6: Designing Effective Power Automate Solutions

- Best Practices for Designing Power Automate Solutions
- Trigger Selection
- Action Selection
- Flow Design

### Module 7: Real-world Integration Scenarios

- Integration with SharePoint Online
- Integration with Dynamics 365
- Integration with Azure Functions
- Integration with Custom APIs

### Module 8: Conclusion and Recap

- Summary of Key Concepts
- Best Practices Review
- Q&A

## Lab and Exercise Details:

Scenario: An HR department needs to automate their employee onboarding process. They want to use a Power App to collect employee information and a Power Automate flow to create a new employee record in their HR system and send an email notification to the IT department to set up a new user account.

### Module 1: Introduction to Power Apps and Power Automate Integration

1. Create a new Power App in the Power Apps Studio that collects employee information, such as name, email address, and department.
2. Add a form to the Power App that allows users to enter this information.
3. Create a new Power Automate flow in the Power Automate Studio.
4. Select the Power App trigger "When a new form is submitted" that corresponds to the form created in step 2.
5. Add an action to the flow that creates a new employee record in the HR system using the information collected in the Power App.
6. Add another action that sends an email notification to the IT department to set up a new user account for the employee.
7. Test the Power App and Power Automate flow to ensure that data is being collected and notifications are being sent.

### Module 2: Building Custom Connectors

1. Identify the HR system that the custom connector will integrate with.
2. Create a new custom connector in the Power Automate Studio.
3. Configure the custom connector by providing the necessary credentials and API endpoints for the HR system.
4. Test the custom connector by using it in a Power Automate flow to create a new employee record in the HR system.
5. Use the custom connector in a Power App to retrieve or display employee data from the HR system.

### Module 3: Triggers and Actions in Power Automate

1. Use the "When a new form is submitted" trigger in the Power Automate flow to automate the employee onboarding process.
2. Add an action to the flow that creates a new employee record in the HR system using the information collected in the Power App.
3. Add another action that sends an email notification to the IT department to set up a new user account for the employee.
4. Configure error handling and other advanced settings as needed.
5. Test the flow to ensure that it is functioning correctly.

### Module 4: Using Power Apps with Power Automate

1. Use the Power App to collect employee information, such as name, email address, and department.
2. Use the Power Automate flow to create a new employee record in the HR system using the information collected in the Power App.
3. Use the Power Automate flow to send an email notification to the IT department to set up a new user account for the employee.
4. Test the Power App and Power Automate flow to ensure that data is being collected and processed correctly.

#### Module 5: Designing Effective Power Apps

1. Plan the user interface for the Power App by sketching out wireframes or mockups.
2. Create the Power App in the Power Apps Studio, using best practices for user interface design.
3. Test the Power App to ensure that it is user-friendly and meets the HR department's requirements for employee onboarding.

#### Module 6: Designing Effective Power Automate Solutions

1. Plan the Power Automate flow by sketching out a flowchart or diagram.
2. Create the Power Automate flow in the Power Automate Studio, using best practices for flow design.
3. Test the flow to ensure that it is functioning correctly and meets the HR department's requirements for employee onboarding.

#### Module 7: Real-world Integration Scenarios

1. Identify the HR system that the Power App and Power Automate flow will integrate with.
2. Create the Power App and Power