



# The Modern Excel Power Apps Advanced



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PivotTable



PivotChart



Interactive Dashboards

Data Model

**DAX**

Power Pivot

Power Query

Power BI



Excel Online



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## Power Apps Advanced – The Transformational Skills

A customizable course according to your company's requirements.

### Duration

16 hours

### Objectives

1. Advanced Power Apps Architecture
2. Advanced Formulas and Expressions
3. Power Apps Component Framework (PCF)
4. Advanced Data Manipulation and Integration
5. Security and User Access Control
6. Advanced Deployment Strategies
7. Real-world Applications and Case Studies

### Pre-requisite

You must have worked on Excel and SharePoint for at least 12 months.



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# Outline of Power Apps Advanced Course:

## 1. Advanced Power Apps Architecture

### 1.1 Architecture and Components

- In-depth understanding of the Power Apps architecture
- Exploring advanced components and controls

### 1.2 Advanced Data Integration

- Connecting to multiple data sources in Excel
- Managing complex relationships in Power Apps

### 1.3 Canvas Apps vs. Model-driven Apps

- Understanding the differences and use cases for canvas and model-driven apps
- Choosing the appropriate app type for specific scenarios

## 2. Advanced Formulas and Expressions

### 2.1 Advanced Formulas in Power Apps

- Importing data from Excel, CSV, and other sources
- Connecting to databases and online sources

### 2.2 Performance Optimization with Formulas

- Strategies for optimizing formula performance
- Identifying and resolving formula-related bottlenecks

### 2.3 External API Integration

- Integrating external APIs with Power Apps
- Dynamic data retrieval and synchronization with Excel

## 3. Power Apps Component Framework (PCF)

### 3.1 Introduction to Power Apps Component Framework

- Overview of PCF and its capabilities



- Building custom components for advanced functionality

### 3.2 Creating Custom Controls

- Developing custom controls for specific Excel requirements
- Enhancing user experience with tailored components

### 3.3 Advanced Canvas App Design Techniques

- Implementing advanced design patterns in canvas apps
- Customizing app layouts for optimal user interaction

## 4. Advanced Data Manipulation and Integration

### 4.1 Power Automate Integration

- Overview of basic functions (Text, Number, Date)
- Application of functions in data transformation

### 4.2 Advanced Data Transformation

- Defining custom functions in Power Query
- Applying custom functions to transform data

### 4.3 Dynamic Data Loading and Refresh

- Techniques for dynamically loading and refreshing data
- Real-time data updates with Excel integration

## 5. Security and User Access Control

### 5.1 Role-based Security in Power Apps

- Optimizing data transformations for performance
- Recognizing query folding in Power Query

### 5.2 Advanced Authentication and Authorization

- Managing query dependencies
- Controlling query evaluation steps



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### 5.3 Compliance and Governance

- Adhering to compliance standards in Power Apps
- Implementing governance strategies for large-scale deployments

## 6. Advanced Deployment Strategies

### 6.1 Environment Management

- Strategies for managing multiple environments in Power Apps
- Promoting apps through development, testing, and production stages

### 6.2 Packaging and Distribution

- Packaging Power Apps solutions for distribution
- Deploying apps across Excel workbooks and shared environments

### 6.3 Integrating Power Apps with Power BI and Teams

- Power Apps integration with Power BI for advanced analytics
- Collaborative app development and deployment in Microsoft Teams

## 7. Real-world Applications and Case Studies

### 7.1 Building a Comprehensive Business App

- Designing a comprehensive business app with advanced features
- Analyzing real-world business challenges and solutions

### 7.2 Industry-specific Customizations

- Customizing Power Apps for specific industry needs
- Showcasing successful industry-specific applications

### 7.3 Q&A and Troubleshooting

- Engaging in in-depth discussions with experts
- Addressing participant questions and providing insights



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