

The Modern Excel Power Apps Advanced













**Excel Online** 



1 of 6





# **Table of Contents**

The Modern Excel

P	Power Apps Advanced – The transformational Skills	3
	Duration	3
	Objectives	3
	Pre-requisite	3
o	Outline of Power Apps Advanced Course:	
	Advanced Power Apps Architecture	
	1.1 Architecture and Components	
	1.2 Advanced Data Integration	
	1.3 Canvas Apps vs. Model-driven Apps	4
	2. Advanced Formulas and Expressions	
	2.1 Advanced Formulas in Power Apps	Z
	2.2 Performance Optimization with Formulas	4
	2.3 External API Integration	
	3. Power Apps Component Framework (PCF)	
	3.1 Introduction to Power Apps Component Framework	4
	3.2 Creating Custom Controls	5
	3.3 Advanced Canvas App Design Techniques	5
	4. Advanced Data Manipulation and Integration	
	4.1 Power Automate Integration	
	4.2 Advanced Data Transformation	5
	4.3 Dynamic Data Loading and Refresh	5
	5. Security and User Access Control	
	5.1 Role-based Security in Power Apps	
	5.2 Advanced Authentication and Authorization	5
	5.3 Compliance and Governance	6
	6. Advanced Deployment Strategies	$\epsilon$
	6.1 Environment Management	ě
	6.2 Packaging and Distribution	$\epsilon$
	6.3 Integrating Power Apps with Power BI and Teams	6
	7. Real-world Applications and Case Studies	$\epsilon$
	7.1 Building a Comprehensive Business App	ě
	7.2 Industry-specific Customizations	$\epsilon$
	7.2 Of A and Traubleshooting	

























# <u>Power Apps Advanced – The Transformational Skills</u>

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)
- Advanced Data Manipulation and Integration
- Security and User Access Control
- **Advanced Deployment Strategies**
- Real-world Applications and Case Studies

## **Pre-requisite**

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





DAX











Power BI

Interactive Dashboards

**Excel Online** 



# **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





DAX

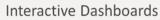




PivotChart



Power BI



**Excel Online** 

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





DAX







PivotChart



Interactive Dashboards

**Excel Online** 

## 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









PivotChart



Interactive Dashboards

**Excel Online** 

DAX