

# Bootcamp Training in Microsoft Power Automate Cloud and Microsoft Power Apps Integration

40 Hours

## Course Description

The Bootcamp Training in Power Automate Cloud and Power Apps Integration is a comprehensive training program that equips participants with the skills and knowledge to seamlessly integrate Power Automate and Power Apps within the Microsoft Power Platform. This course covers the fundamentals of Power Automate and, enabling learners to build powerful automated workflows and dynamic applications. Participants will explore real-world use cases, design data entry forms, automate data processing, and implement complex approval workflows. Through hands-on exercises and practical examples, learners will gain proficiency in creating efficient and seamless integration solutions. The course also introduces to Power Automate Desktop (RPA).

## Audience

This course is suitable for professionals, developers, and IT enthusiasts who want to master the integration capabilities of Microsoft Power Automate and Power Apps. It is ideal for business analysts, app developers, workflow designers, and anyone interested in streamlining processes, automating tasks, and enhancing productivity.

## Pre-requisite Knowledge/Skills

No prior experience with Power Automate or Power Apps is required, but basic familiarity with Microsoft Office applications and general computing concepts is beneficial. Participants should have a keen interest in process automation and app development.

## Course Objectives

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

- Understand the Microsoft Power Automate and its components.
- Create automated workflows using Power Automate for various events and triggers.
- Integrate Power Automate and Power Apps to streamline data processing.
- Implement complex approval workflows for different use cases.
- Utilize expressions, functions, and variables to enhance flow logic and data manipulation.
- Debug and troubleshoot flows and apps effectively.
- Create an integration flow between Power Apps, Power Automate Cloud and Power Automate Desktop.

# Course Outline

The course comprises 40-hours of theory and labs.

## Module 1: Introduction to the Power Automate

- Understanding Microsoft Power Automate
- The synergy of Power Automate and Power Apps in the Power Platform
- Real-world applications and benefits of integrating Power Automate and Power Apps
- Setting Up Your Environment
- Creating a Power Automate environment
- Configuring a Power Apps environment

## Module 2: Exploring Power Automate Basics

- Getting Started with Power Automate
- Understanding the basic components of a flow
- Navigating the Power Automate user interface
- Creating your first automated flow from scratch
- Triggering Flows
- Understanding triggers and trigger types
- Configuring triggers for different events (e.g., When an item is created, when a button is clicked)
- Exploring manual and automated triggers
- Working with Actions
- Introduction to actions and action types
- Building actions to perform various tasks (e.g., sending an email, creating a SharePoint item)
- Configuring inputs and outputs for actions

## Module 3: Introduction to Power Apps Basics

- Canvas Apps Fundamentals
- Data Connections and Data Sources
- Connecting Power Apps to data sources (e.g., SharePoint, SQL Server, Dataverse)
- Integrating Power Apps with Power Automate for data processing
- Model-Driven Apps Essentials

- Import a solution

#### **Module 4: Integrating Power Automate with Power Apps**

- Triggering Flows from Power Apps
- Building an on-demand flow trigger using buttons and icons
- Using Power Automate in response to specific user actions
- Passing data between Power Automate and Power Apps parameters
- Power Apps Controls for Flows
- Incorporating Power Automate flows directly into Power Apps using the Flow control
- Utilizing the Start a flow action to trigger flows from within apps
- Controlling flow execution with wait conditions and delays

#### **Module 5: Building Complex Flows integration with Apps.**

- Composite Flows
- Creating complex flows by combining multiple flows into a single flow
- Understanding scope, input, and output for composite flows
- Passing data between composite flows and child flows

#### **Module 6: Automating Data Entry and Updates**

- Designing Data Entry Forms
- Creating data entry forms using the Power Apps Forms control
- Customizing form behaviour with validation rules and error handling
- Implementing cascading dropdowns and dependent fields
- Automating Data Entry with Power Automate
- Building a flow to automate data entry and validation
- Integrating AI Builder for automated data extraction and classification
- Using scheduled flows for periodic data updates
- Creating Data Update Flows
- Designing data update flows for record updates and deletions
- Using Power Automate flow buttons to initiate data updates
- Implementing security measures for sensitive data updates

#### **Module 7: Enhancing Power Automate Skills**

- Implementing complex conditions and branching in flows
- Utilizing expressions and functions for advanced flow logic

- Looping and iterating through data with Apply to Each and Do Until
- Introduction to custom connectors and their benefits
- Creating and using custom connectors in flows
- Integrating with APIs and web services using custom connectors
- Advanced Flow Concepts
- Using expressions and functions for advanced flow logic
- Implementing conditions and loops in flows
- Utilizing variables to store and manipulate data within flows

## **Module 8: Building Basic Approval Workflows**

- Introduction to Approval Processes
- Understanding the Approval action in Power Automate
- Configuring approval steps and participant settings
- Using the Approval Status column in SharePoint or Dataverse for approvals
- Creating a Leave Request Approval Flow
- Designing a leave request form in Power Apps
- Building an approval flow for leave requests with email notifications
- Handling approval responses within Power Apps

## **Module 9: Power Automate Desktop**

- Introduction to Power Automate Desktop for desktop automation.
- Automating web and desktop applications with UI automation.
- Creating flows to streamline repetitive tasks.
- Create an Integration Flow for Power Apps → Power Automate Cloud → Power Automate Desktop

## **Module 10: Error Handling and Troubleshooting**

- Understanding Common Flow Errors
- Identifying and troubleshooting common errors in Power Automate
- Handling errors with the Scope and Terminate actions.
- Implementing error notification and logging mechanisms
- Debugging Flows and Apps
- Using the Run History and Flow Checker for flow debugging
- Leveraging the Monitor tool for detailed flow analysis