Mastering Power Automate: Advanced Techniques for Streamlining Workflows

Course Description

The course is designed to teach individuals how to use Microsoft Power Automate (formerly known as Microsoft Flow) to automate repetitive tasks and processes. The course covers a range of topics, including working with dynamic content and expressions, variables, conditions, and loops, as well as advanced control properties and OData. Students will also learn how to work with adaptive cards and integrate with Power Apps, as well as best practices for handling errors and creating parent and child flows. In addition, the course covers using the SharePoint HTTP action and the Microsoft Graph API. By the end of the course, students will be able to use Power Automate to streamline their workflows, reduce errors, and save time.

Audience

The course is designed for individuals who want to learn how to automate tasks and processes using Microsoft Power Automate. The course is suitable for both beginners and intermediate users who want to improve their skills and knowledge of Power Automate.

The course is ideal for business professionals, IT professionals, and individuals who work with data on a regular basis, such as data analysts or business analysts. The course can benefit individuals from various industries, including finance, healthcare, marketing, and more.

The audience should have a basic understanding of Microsoft Office products and be comfortable with basic computer operations. No prior experience with Power Automate is necessary, although some experience with coding or scripting would be helpful.

Pre-requisite Knowledge/Skills

The Power Automate Essentials course requires some basic knowledge and skills to ensure that students can effectively learn and apply the concepts taught in the course. The following are some of the prerequisite knowledge and skills:

1. Basic understanding of Microsoft Office products, such as Excel, Word, and PowerPoint.

2. Basic computer skills, such as navigating files and folders, using a keyboard and mouse, and installing software.

3. Basic knowledge of business processes and workflows, including how data flows and how tasks are performed.

4. Familiarity with cloud-based services and applications, such as OneDrive, SharePoint, and Microsoft Teams.

5. Basic understanding of data structures, such as tables, columns, and rows, and how to work with them.

6. Some experience with coding or scripting would be helpful, but it is not required.

Course Objectives

By the end of the course, students should be able to:

1. Understand the fundamental concepts of Power Automate and its capabilities.

2. Create and manage automated workflows using Power Automate.

3. Use variables, conditions, and loops to create complex workflows.

4. Work with functions and expressions to perform complex tasks and manipulate data.

5. Design and implement adaptive cards for use in automated workflows.

6. Integrate Power Automate with other applications, such as Power Apps, SharePoint, and Microsoft Graph API.

7. Follow best practices and handle errors when creating automated workflows.

8. Create parent and child flows to perform more complex tasks.

9. Use the Microsoft Graph API to perform more advanced tasks.

10. Understand the use of advanced control properties and OData to further enhance workflows.

Overall, the course is designed to provide students with a practical understanding of Power Automate, allowing them to create efficient and effective workflows that can automate many of their day-to-day tasks.

Course Outline

The course comprises 32-hours of theory and labs. It's divided into 11 different modules.

Module 1 - Power Automate Fundamentals

- Dynamic content and expressions

- Lab 01 - Preparation tasks

Module 2 - Variables, Conditions, and Loops

- Working with variables

- Conditional statements

- Looping statements

- Lab 02 - Conditions and loops

Module 3 - Functions and Expressions

- Expression basics

- Anatomy of a function

- Advanced expressions

- Expression editor

- Functions

- Expressions or actions

- Lab 03 - Functions and expressions

Module 4 - Adaptive Cards

- Introduction to Adaptive Cards

- Adaptive Cards designer

- Using an Adaptive Card

- Lab 04 - Adaptive Cards

Module 5 - Advanced Control Properties and OData

- Introduction to OData

- Common advanced settings

- Advanced trigger settings

- Lab 05 - Advanced properties

Module 6 - Advanced Approvals

- Approval options

- Custom responses

- Approval limitations

- Adding reminders to approvals

- State pattern

- Lab 06 - Advanced approvals

Module 7 - SharePoint HTTP Action

- Making an HTTP request to SharePoint

- Lab 07 - SharePoint HTTP action

Module 8 - Power Apps Integration

- The flow

- Calling the flow from Power Apps

- Capturing returned data

- Lab 08 - Working with Power Apps

Module 9 - Best Practices and Error Handling

- Documentation

- Optimizing flows

- Keep flow configurations generic

- Handling errors

- Lab 09 - Handling errors

Module 10 - Parent and Child Flows

- Parent / Child flows general principle

- Using a Solution

- Lab 10a - Child flows: HTTP action

- Lab 10b - Child flows: solutions

Module 11 - Microsoft Graph API

- Introduction to the Microsoft Graph API

- Lab 11 - Using the Microsoft Graph API