PowerApps Masterclass: Building and Automating Solutions

<u>Duration: 40 hours</u>

Course description

This course will teach how to build apps with low-code techniques to simplify, automate, and transform business tasks and processes using Microsoft Power Platform.
This course will allow you to practice your App Maker skills by creating an end-to-end solution to solve a problem for a fictitious company. The solution will include a Microsoft Dataverse database, Power Apps canvas app, and Power Automate flows.

Learning objectives

After completing this course, students will be able to:

- Fundamentals of Power Platform
- Design apps and automate workflows
- Integrate components with Power apps
- Working with Dataverse and Power Pages

Audience prerequisites

- Basic data modelling, user experience design, requirements analysis, and process analysis skills.

- A personal growth mindset and are comfortable using technology to solve business problems.

- An understanding of the operational need and have a vision of the desired outcome. They approach problems with phased and iterative strategies

- Basic understanding of programming concepts, with fundamental knowledge of any programming language for few advance concepts.

Course Content

Module 1: Getting started with Microsoft Power Platform

- Components of Power Platform

- Data Connectors

- Manage environments and Solutions

Module 2: Microsoft Dataverse

- What is a relational database?

- Introduction to Microsoft Dataverse

- Create and manage tables in Microsoft Dataverse

- Create and manage columns in Microsoft Dataverse

- Create relationships between tables in Dataverse

- Create and define calculated and rollup columns in Dataverse

- Load data into Dataverse

- Manage security in Microsoft Dataverse

Module 3: Model-driven apps in Power Apps

- Introduction to model-driven apps

- Create model-driven apps

- Design forms

- Design views

- Design charts

- Design dashboards

- Manage settings and security model-driven app

- CRUD operations in Model Driven apps

Module 4: Canvas apps in Power Apps

- Introduction to canvas apps

- Create a canvas app in Power Apps

- Using and describing controls in a canvas app in Power Apps

- Writing PowerApps Expressions

- Navigation in a canvas app

- Displaying Data using Galleries

- Filters and sorting Data in Canvas

- Creating and editing Forms

- Variables and Collections

- CRUD operations and Patch

- Managing apps in Power Apps

- Connect to multiple external Connectors in canvas apps

- Delegation in Power Apps

- Designing Reusable Components

- UI Guidelines and best practices

Module 5: Automate your processes with Power Automate

- Overview of Power Automate

- Creating cloud flows with Power Automate

- Triggers and Actions in Power Automate cloud flows

- Flow Control Actions

- Creating Approval Flows

- Understanding Parallel branches in Flows

- Introduction to expressions in Power Automate

- Test and troubleshoot your flows

- Overview of Flows with Microsoft forms

- Handling errors in power Automate

Module 6: Integrating PowerApps with External systems

- Calling External Services using HTTP Actions

- Child Flows

- Creating and testing Custom Connectors

- Configuring a Custom Connectors to use OAuth

Module 7: Designing and Developing Power Pages

- Introduction to Power Pages

- Core components of Power Pages

- Explore Power Pages design studio

- Creating a simple website using Power Pages

- Power Pages Security

Module 8: Integrating PowerApps with Power BI

- Overview of Power BI

- Data Lifecycle in Power BI

- Tools of Power BI

- Adding Power BI tiles in Power Apps

- Extending Power BI Reports using Canvas Apps

- Automating Tasks in Power BI Reports

- Power BI Dashboard Alerts