MB-500T00: Microsoft Dynamics 365: Finance and Operations Apps Developer

Course Duration: 40 Hours (5 days)

Overview

The MB-500T00: Microsoft Dynamics 365: Finance and Operations Apps Developer course is designed for professional developers and technical consultants who want to learn how to customize and extend the capabilities of Dynamics 365 Finance and Operations (D365FO). This comprehensive course covers the architecture of D365FO, development environment setup, and Project/model creation. Participants will gain in-depth knowledge of Developer Tools, including Lifecycle Services (LCS), Visual Studio customization, Source code management, and the Application Object Tree (AOT). The course also delves into Solution design, Code development, and Testing, teaching best practices for creating efficient and high-quality code. Furthermore, learners will explore data migration tools, frameworks for extending D365FO functionality, and various integration scenarios with other systems and Azure services. Reporting and analytics are also covered, providing insights into creating and optimizing reports. Finally, the course addresses security and performance optimization, ensuring that the solutions developed are secure, scalable, and performant. By the end of the course, learners will have the skills necessary to design, develop, and maintain solutions that enhance the capabilities of Dynamics 365 Finance and Operations, preparing them for the challenges of real-world development projects.

Audience Profile

The MB-500T00 course is designed for professionals seeking expertise in Dynamics 365 Finance and Operations app development

- Dynamics 365 Developers
- Technical Consultants with a focus on Dynamics 365 FO
- Software Engineers transitioning to Dynamics 365 platform
- Solution Architects working on Microsoft Dynamics solutions
- Systems Developers requiring knowledge of D365FO architecture
- IT Professionals aiming for career advancement in Dynamics 365 customization
- Existing Microsoft Certified Professionals (MCPs) specializing in finance and operations apps
- DevOps Engineers focusing on lifecycle services and automation for Dynamics 365
- Database Administrators involved in data migration for D365FO
- Business Analysts looking to understand the technical aspects of D365FO solutions
- Technical Project Managers overseeing D365FO implementations

- Data Integration Specialists working with Dynamics 365 and Azure
- Reporting Specialists focused on BI and analytics within Dynamics 365 FO
- Security Consultants responsible for role-based access and security in Dynamics 365
- Performance Engineers optimizing Dynamics 365 FO environments
- Quality Assurance Testers involved in unit testing of Dynamics 365 FO applications
- Professional Developers interested in extending their skills to the Dynamics 365 platform

Course Syllabus

Learning Path 1 - Introduction to Developing with Finance and Operations Apps

- Module 1: Explore the Ecosystem and Main Components
- Module 2: Explore the Technical Architecture
- Module 3: Explore Design and Deployment Considerations
- Module 4: Manage Implementation by Using Lifecycle Services
- Module 5: Work with Performance and Monitoring Tools
- Exercise: Use the Environment Monitoring Tool in Lifecycle Services
- Module 6: Manage Source Code by Using Version Control
- Module 7: Explore the Test Framework and Tools
- Group Discussion: Testing Methodologies, Scenario 1/2
- Group Discussion: Testing Methodologies, Scenario 2/2
- Module 8: Explore Reporting Tools
- Exercise: Set Authorization Requirements on Database Tables
- Lab 1: Create a New Module & Workspace

Learning Path 2 - Build Finance and Operations Apps

- Module 1: Set Up a VHD
- Exercise: Install a Virtual Machine
- Module 2: Start Developing
- Demo: Create and Build Projects
- Demo: Build Deployment Packages
- Exercise: Create a Project and Add an Element
- Module 3: Get Started with Development Using X++
- Demo: Conditional Statements
- Module 4: Develop Object-oriented Code
- Exercise: Create an Extension by Using Chain of Command

- Module 5: Implement Application Lifecycle Management
- Module 6: Build Extended Data Types and Enumerations
- Exercise: Create a Base Enumeration, Add Elements, and Update Properties
- Module 7: Build the Data Model
- Exercise: Create a Table, Add Fields, and Create Field Groups
- Module 8: Build Forms and Optimize Form Performance
- Demonstrator: How to Add a Form to a Project and Apply a Pattern to the Form
- Exercise: Create a Form
- Module 9: Create Classes
- Exercise: Insert Records by Using a Runnable Class
- Module 10: Build Reports
- Demo: Connect to your Data by Using Power BI
- Exercise: Create and Deploy a Report
- Module 11: Build Workspaces
- Exercise: Create a Workspace and Add a Tile, List, Link, and Power BI Element
- Module 12: Implement Role-based Security
- Exercise: Create a New Security Role and Add Dues
- Module 13: Apply Basic Performance Optimization
- Exercise: Create Runnable Classes in Visual Studio to Test Code
- Video: Extended Data Security
- Lab 2: Create a New EDT Table and Form

Learning Path 3 - Extend Finance and Operations Apps

- Module 1: Explore Extensions and the Extension Framework
- Exercise: Extend an EDT
- Module 2: Extend Elements
- Exercise: Extend a Form and Add Controls
- Group Discussion: Code Augmentation (1/5 to 5/5)
- Module 3: Consume Business Events
- Module 4: Work with Workflows
- Exercise: Create a Purchase Requisition Workflow
- Lab 3: Create a Custom Workflow on the Poisons Form
- Learning Path 4 - Connect to Finance and Operations Apps
- Module 1: Identify Data Integration Patterns and Scenarios
- Module 2: Implement Data Integration Concepts and Solutions

- Module 3: Implement the Data Management Package API
- Module 4: Data Integration
- Set Up a Data Project and Recurring Data Job
- Exercise: Create a Data Project and Recurring Data Job
- Video: Integration with Dataverse using a Virtual Entity
- Module 5: Prepare Data for Migration
- Module 6: Manage Data Sources with External Data Stores
- Exercise: Create a Data Entry
- Module 7: Integrate with Microsoft Azure
- Module 8: Connect to Microsoft Power Platform Services
- Module 9: Work with Tools and Best Practices to Integrate with Microsoft Power Platform
- Exercise: Troubleshoot Dual-write Integration
- Lab 4: Create a Composite Data Entity
- Learning Path 5 - Migrate Data and Go Live
- Module 1: Work with Data Management
- Exercise: Explore the Data Management Workspace
- Exercise: Export Data Using the Data Management Workspace
- Group Discussion: BYOD vs. Entity Store (Scenario 1 & 2)
- Module 2: Perform User Acceptance Testing
- Exercise: Build Test Scripts to Test Business Functionality
- Module 3: Prepare to Go Live
- Module 4: Use Regression Suite Automation Tool (RSAT)
- Module 5: Work with Analytics and Reporting
- Exercise: Work with Reports
- Module 6: Configure Electronic Reporting
- Exercise: Generate Electronic Documents for Payments
- Lab 5: Data Export Using Bring Your Own Database (BYOD)