Development Basics in Microsoft Dynamics 365 Finance and Operations

Course Duration: 40 Hours (5 Days)

Overview

The Development Basics in Microsoft Dynamics 365 Finance and Operations course is designed to provide learners with foundational knowledge and skills for developing within the Microsoft Dynamics 365 platform, specifically targeting the Finance and Operations applications. It covers a broad range of topics, from an introduction to Visual Studio, which is the primary development environment, to understanding the Architecture of D365 operations, working with Labels and resources for localization, and defining data structures through Extended data types, Base enumerations, and Tables. Students will learn how to create efficient Table indexes, establish Table relations, design forms using Form patterns, and navigate the Menu structure. The course also dives into the core programming language of D365 development, X++, and it instructs on how to create classes, perform Database manipulation, and handle exceptions. Additionally, it covers security basics crucial for developing secure applications and introduces advanced topics to prepare learners for more complex development tasks. By completing this course, learners will gain the necessary skills for D365 development within Microsoft 365 operations, setting the stage for creating robust, enterprise-level solutions.

Audience Profile

The Development Basics in Microsoft Dynamics 365 Finance and Operations course equips IT professionals with essential skills for software customization and development in Dynamics 365.

- Dynamics 365 Developers
- Technical Consultants
- Software Engineers interested in Dynamics 365
- IT Professionals transitioning to Dynamics 365 development
- Systems Architects designing solutions for Dynamics 365
- Existing Dynamics AX developers upgrading their skills
- ERP Specialists seeking to understand the technical aspects of Dynamics 365
- Application Developers working with X++
- Technical Solution Architects
- Database Administrators involved in Dynamics 365 implementations
- IT Graduates aiming for a career in Dynamics 365 development

Course Syllabus

Module 1: Introduction to Visual Studio

- Lesson 1: Module Overview
- Lesson 2: Fleet Management Scenario
- Lesson 3: Setup and Configuration
- Lesson 4: Terminology and Concepts
- Lesson 5: Naming Conventions
- Lesson 6: Navigation
- Lesson 7: Projects, Models, and Packages
- Lesson 8: Using Elements
- Lesson 9: Performing Builds

Labs:

- Configure Visual Studio
- Create a Project
- Create an Element
- Build and Compile

Module 2: Architecture

- Lesson 1: Application Stack
- Lesson 2: Server Architecture
- Lesson 3: Cloud Architecture

Module 3: Labels and Resources

- Lesson 1: Labels
- Lesson 2: Fleet Management Scenario
- Lesson 3: Creating and Using Labels
- Lesson 4: Searching Labels
- Lesson 5: Best Practices for Labels
- Lesson 6: Resources

- Lesson 7: Creating and Using Resources

Lab: Create Labels

Module 4: Base Enumerations

- Lesson 1: Fleet Management Scenario
- Lesson 2: Creating a Base Enumeration
- Lesson 3: Best Practices

Lab: Create Base Enumerations

Module 5: Extended Data Types (EDTs)

- Lesson 1: Fleet Management Scenario
- Lesson 2: Primitive Data Types
- Lesson 3: Creating an EDT
- Lesson 4: Best Practices

Lab: Create Extended Data Types (EDTs)

Module 6: Tables

- Lesson 1: Fleet Management Scenario
- Lesson 2: Creating a Table
- Lesson 3: Adding Data Types
- Lesson 4: Key Properties
- Lesson 5: Table Inheritance
- Lesson 6: Temporary Tables
- Lesson 7: Queries
- Lesson 8: Best Practices

Labs:

- Create Tables
- Create Queries

Module 7: Table Indexes

- Lesson 1: Fleet Management Scenario
- Lesson 2: Index Types
- Lesson 3: Creating an Index
- Lesson 4: Best Practices

Lab: Create an Index

Module 8: Table Relations

- Lesson 1: Fleet Management Scenario
- Lesson 2: Relations
- Lesson 3: Creating a Relation
- Lesson 4: Best Practices

Lab: Create a Table Relationship

Module 9: Form Patterns

- Lesson 1: Form Patterns and Sub-patterns (Part 1)
- Lesson 2: Form Patterns and Sub-patterns (Part 2)
- Lesson 3: Form Patterns and Sub-patterns (Part 3)
- Lesson 4: Layout Properties
- Lesson 5: Checking Form Patterns

Module 10: Form Creation

- Lesson 1: Fleet Management Scenario
- Lesson 2: Creating a Form
- Lesson 3: Form Controls
- Lesson 4: Adding Elements
- Lesson 5: Best Practices

Labs:

- Create Forms
- Add Elements

Module 11: Menus

- Lesson 1: Fleet Management Scenario
- Lesson 2: Creating Menu Items
- Lesson 3: Creating Menus

Labs:

- Create Menu Items
- Create a Menu

Module 12: X++ Overview

- Lesson 1: Fleet Management Scenario
- Lesson 2: Code Editor
- Lesson 3: Creating a Runnable Class
- Lesson 4: IntelliSense
- Lesson 5: Data Types
- Lesson 6: Variable Declaration
- Lesson 7: Key Operators
- Lesson 8: Basic Syntax (Part 1)
- Lesson 9: Basic Syntax (Part 2)
- Lesson 10: Comparison Tools
- Lesson 11: Debugger
- Lesson 12: Best Practices

Lab: Create a Runnable Class

Module 13: Classes

- Lesson 1: Fleet Management Scenario
- Lesson 2: Class Structure
- Lesson 3: Creating a Base Class
- Lesson 4: Methods
- Lesson 5: Class Inheritance
- Lesson 6: Best Practices

Module 14: Database Manipulation

- Lesson 1: Fleet Management Scenario
- Lesson 2: Data Retrieval
- Lesson 3: Reading Records
- Lesson 4: Transaction Integrity Checking
- Lesson 5: Data Insertion
- Lesson 6: Data Updates
- Lesson 7: Data Deletion

Module 15: Exception Handling

- Lesson 1: Fleet Management Scenario
- Lesson 2: Exception Types
- Lesson 3: Key Commands
- Lesson 4: Code Statements

Module 16: Security Basics

- Lesson 1: Security Architecture Overview
- Lesson 2: Creating a Role
- Lesson 3: Creating a Duty
- Lesson 4: Security Properties on Key Elements

Module 17: Introduction to Advanced Topics

- Lesson 1: Business Intelligence
- Lesson 2: Reporting Services
- Lesson 3: Services and Integration
- Lesson 4: Data Entities