

Microsoft Dynamics AX 2012: Development Foundations



Workshop*PLUS*

Target Audience:

This 300-level workshop is designed for those responsible for creating, customizing, and extending modifications in Microsoft Dynamics AX. The prerequisites that allow candidates to see the most value from this workshop are:

- A good understanding of Microsoft Dynamics AX, SQL Server, and Visual Studio
- Previous experience with object oriented programming

Overview

Microsoft Dynamics AX offers a great amount of flexibility to adapt to your business. With the Development Foundations Workshop, we will introduce you to customizing the application to meet your needs. This workshop is designed to introduce you to Microsoft Dynamics AX development, get you started in customizing your environment, and prepare you for advanced development. This training covers:

- Architecture
- Data dictionary
- User interfaces
- X++ (introductory level)
- Control statements
- Objects and classes (introductory level)
- Accessing the database
- Exception handling
- Security

This workshop is intended for individuals who have minimal or no experience developing in an AX system. In this course participants will learn the development components and how to use these components to create, customize, and extend modifications in and AX 2012 environment.

Technical Highlights

After attending this workshop, students will be able to:

- Understand the requirements and prerequisites for a Microsoft Dynamics AX 2012 development.
- Use the various Microsoft Dynamics AX 2012 development components and features.
- Perform the administrative tasks necessary to create and maintain customizations in a healthy Microsoft Dynamics AX environment.
- Manage the movement of customizations from one environment to another.
- Reverse engineer objects.

Syllabus

In order to ensure that concepts are practiced and understood, hands on-labs are an emphasis of this course

This workshop runs 4 full days, typically scheduled from 9 to 4. Students should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Day 1:

Module 1: Architecture

- Features of Dynamics AX
- Architecture
- Development Environments
- Model Driven Architecture
- Licensing and Configuration

Module 2: Data Dictionary

- MorphX and the Application Object Tree
- Tables Overview
- Data Types, Primitive and Extended
- Creating Tables
- Indexes
- Relations
- Base Enumerations
- Views

Day 2:

Module 3: User Interfaces

- Forms
- Joining Data Sources
- Menu Items
- Form Templates
- List Pages
- Fact Boxes

Module 4: Intro to Xpp

- Characteristics of X++
- Development Tools
- Best Practices

Module 5: Xpp Control Statements

- Variables
- Operators
- Conditional Statements
- Loops
- Built-in Functions
- Communication Tools

Syllabus (continued)

Day 3:

Module 6: Objects and Classes

- Classes
- Method Access Control
- Inheritance
- Objects
- Scoping and Parameters in X++
- Referencing Objects Methods
- Method Types
- Tables as Classes
- Eventing

Module 7: Accessing the Database

- Retrieving Data
- Data Manipulation
- Queries

Day 4:

Module 8: Exception Handling

- Exceptions
- Try and Catch Statements
- Throwing Exceptions
- Optimistic Concurrency Exceptions

Module 9: Security

- Setting Up a New User
- Assigning a User to a Role
- Changing Duties on a Role
- Changing Privileges on a Duty
- Assigning a Permission to a Privilege
- Investigating Access

Module 10: Security for Developers

- Permissions
- Security Policies
- Code Access Security
- Display Method Authorization