

3 Days

## 80312 Development III in Microsoft Dynamics AX 2012

The Development III training period puts into application the techniques taught and learn in in Development I in Microsoft Dynamics® AX 2012 and Development II in Microsoft Dynamics® AX 2012 courses. This three-day course will also introduce participants to more advanced features of X++ and MorphX and encourages the deployment of the Testing Framework to build for more reliable coding.

Completion of this training course will enable candidates in:

- Creating a test case, adding methods to a test case & run a test case.
- Building a test project and suite & isolate test cases appropriately.
- Explaining the MorphX development environment and the Application Object Tree
- Programming optimal database access using a "while select" statement & queries.
- Describing the caching mechanisms in Microsoft Dynamics AX.
- Preventing and resolving database locking.
- Using ParmId and ParmTables.
- Using collection classes to store data in X++.
- Listing which application objects control different GUI components.
- Modifying and using the Application Substituted Kernel Classes.
- Extending the RunBase framework to create new batch processes.
- Transferring information using the Args object.
- Identifying the main sections that make up a form.
- Adding data sources to a form to define what data is displayed by the form.
- Modifying form methods to the control how the form behaves when it opens and closes.
- Making runtime modification of the fetch of data.
- Exploring the Application Object Tree (AOT) from Visual Studio.
- Creating a project in Visual Studio.
- Writing .NET managed code that uses X++ objects.
- Configuring how the workflow engine is executed on a server.
- Creating a new workflow type & Apply a workflow to a form.
- Creating Event Handlers and apply them to a workflow.
- Defining what happens when the workflow is approved or denied.

## Course Details

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# Course Outline

## **Module 1: X++ Unit Test Framework**

- Introduction
- Create Test Cases
- Add Methods to Test Cases
- Run Test Cases
- Build Test Projects and Suites

### **Lab: Create a Test Case**

## **Module 2: Working with Data**

- While Select
- Query
- Caching & Locking
- Temporary Tables
- ParmTables
- InitFrom
- Date Effectiveness
- Data Integration
- Computed Columns in Views

### **Lab: Fetching Data**

### **Lab: Converting Queries**

### **Lab: Reducing Locking**

### **Lab: Temporary Tables**

### **Lab: Integrating External Data**

## **Module 3: Classes**

- Introduction
- Collection Classes
- Args Object
- Application Object Classes
- Application Substituted Kernel Classes
- RunBase Framework

### **Lab: Create a Map**

### **Lab: Create a Query from Code**

**Lab: Create a Global Method**

**Lab: Make a RunBase Class**

**Lab: Using Args**

#### **Module 4: Forms**

- Architecture
- Data Sources
- Form Methods
- Form Controls
- Additional Controls
- Placement of Code

**Lab: Create a Form**

**Lab: Use Unbound Controls**

**Lab: Initialize a Form**

**Lab: Add a Window Control**

#### **Module 5: Visual Studio Integration**

- Introduction
- Application Explorer
- Managed Code Projects
- Visual Studio Projects
- Deploy Managed Code
- Visual Studio Debugging Experience for X++

**Lab: Create a Managed Code Project**

**Lab: Create an Event Handler in Managed Code**

#### **Module 6: Workflow**

- Workflow Configuration
- Create a Workflow Category
- Create a Workflow Type
- Create a Workflow Approval
- Author a Workflow
- Create a Query
- Enable Workflow on a Form
- Create Event Handlers

**Lab: Add another Condition to the Submit Action**

## Who Should Attend

This Microsoft course 80312a is intended for experienced systems consultants who are working for a Microsoft Dynamics partner that is selling, consulting, implementing, and supporting Microsoft Dynamics AX 2012.

## Pre Requisite

None

## Exams

Microsoft Certified Professional (MCP) []

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