

55259: Microsoft Dynamics 365 Customer Engagement for Developers

Duration: 3 Days

Course Content:

Microtek Learning provides this training for experienced developers and IT professionals, offering a fast-track approach to understand and learn about various skills required to develop code in Microsoft Dynamics 365. We plan to teach students about writing both server and client-side code to create custom business logic in Custom Workflow Activity and Plug-Ins, use various APIs available in the Microsoft Dynamics 365 Customer Engagement framework, and use the HTML and Enterprise JavaScript Web Resources to extend the event model of Dynamics 365.

This training is intended for both enterprise and business editions of Microsoft Dynamics 365 Customer Engagement. Professionals can apply the learnings of this course on Outlook, UCI, and Web apps.

This training is designed based on the objectives of the course variant 55259A.

Who should attend?

This training is designed for Developers, Technical students, and Administrators. It is recommended that students applying for this course should have an existing working knowledge of Visual Studio and Microsoft .Net.

Prerequisites for this training

- Ideally a working knowledge of Microsoft .Net and Visual Studio
- It is recommended all students successfully complete the [‘Introduction to Microsoft Dynamics 365’](#) course

Course Objectives

- Introduction to the Hubs and Apps in Microsoft Dynamics 365 Customer Engagement including marketing, service, and sales
- Learning the differences between the PowerApps and Dynamics 365 Apps
- Learning how to create, relate, update, assign, and delete records in Microsoft Dynamics 365
- Creating activities, notes, and posts in the Timeline control and interacting with the Relationship Assistant
- Managing, Assigning and Completing Activities
- Understanding Connections and using them to relate records together
- Working with Views and creating and saving a Personal View of records
- Understanding how to work with Related Records and Lookups



- Sharing records and viewing with other Users
- Performing bulk operations on records
- Configuring Personal Options to personalize the user experience
- Tracking Appointments and Email in Outlook against records in Dynamics 365
- Finding information using Advanced Find, Quick Find, and Global Search,
- Exploring tools such as Reports and creating a Custom Report using the Report Wizard
- Creating a Dashboard and Personal Chart and set as your homepage

Detailed Course Outline:

Module 1: Introduction to Dynamics 365 Development

This module introduces the concept of developing and extending the Microsoft Dynamics 365 Framework. You will learn about the tools and resources that are available to developers and administrators as well as best practice methodologies and fundamentals.

Lessons

- Introduction to Dynamics 365 Development
- Dynamics 365 Developer Options
- Development Tools for Dynamics 365
- The Customer Engagement Toolkit (formally SDK)
- Dynamics 365 Development Environments
- Valuable Skills for Dynamics 365 Development
- Further reading and resources

Lab: Dynamics 365 Developer Orientation

- Review Developer Resources
- Review the Developer Center and Forums
- Download a package from NuGet
- Review the Developer Resources
- Review the Lab Files
- Install the Sample Data

After completing this module, students will be able to:

- Be familiar with the Customer Engagement Toolkit and how to set up Visual Studio
- Understand the key skills required to develop and extend Dynamics 365
- Know where to find help and further reading resources
- Describe the key features and tools available to developers in Microsoft Dynamics 365 CE Version 9

Module 2: The Dynamics 365 API

This module presents the various Developer resources, Web Services, and APIs available to developers in Microsoft Dynamics 365. You will learn how to write code to consume the Web Service API endpoints using Microsoft .Net C# in Visual Studio in this module.



Lessons

- Introduction to the Dynamics 365 API's
- Authentication Considerations
- The Web API
- The Discovery Web Service
- The Organization Web Service
- Core Assemblies
- Early and Late-bound classes
- The Code Generation Tool
- Service Context
- CRUD Operations
- Using the Query Expression Class
- Using LINQ
- Using FetchXML

Lab: Using the Dynamics 365 Web API with Server-side code

- Set up the Visual Studio Project
- Develop an App to perform operations using the Web API
- Test your App

Lab: Query Records in Dynamics 365

- Set up the Visual Studio Project
- Query Dynamics 365 using the Query Expression Class
- Display Dynamics 365 records in an external App

Lab: CRUD Operations in Dynamics 365

- Set up the Visual Studio Project
- Create Early Bound Classes
- Using LINQ to Create, Read, Update and Delete records
- Test your App

After completing this module, students will be able to:

- Understand how to write code to utilize the Web API, Discovery, and Organization Services
- Be able to set up Visual Studio to start developing against the Dynamics 365 framework
- Understand the differences between late and early bound code
- Know how to authenticate against Dynamics 365 from external apps
- Understand how to use the Service Context, write LINQ and FetchXML to perform CRUD operations
- Be familiar with the various API's available to developers in Microsoft Dynamics 365 CE Version 9

Module 3: Developing Plug-Ins for Dynamics 365

In this module, you will learn how to develop custom business logic in a Plug-In component using Microsoft .Net C# in Visual Studio. You will also learn how to deploy Plug-In components to Microsoft Dynamics 365 using the Plug-In registration tool.



Lessons

- Introduction to Plug-Ins
- Writing Plug-In Code
- Using the Plug-In Registration Tool
- Debugging Plug-Ins with the Plug-In Profiler
- Deploying Plug-Ins with Solutions

Lab: Create and deploy a Plug-In

- Customize Dynamics 365
- Set up the Visual Studio Project
- Create a Plug-In
- Sign and Build the Assembly
- Deploy a Plug-In using the Plug-In Registration Tool
- Test your Plug-In
- Debug Plug-In code using the Plug-In Profiler Tool

After completing this module, students will be able to:

- Know how to set up a Visual Studio project to start creating a custom Plug-In component
- Be familiar with the process to write, deploy and test Plug-In code in Visual Studio
- Use the Plug-In Registration Tool to deploy a Plug-In to the Dynamics 365 Framework
- Debug issues with Plug-In code using the Plug-In Profiler tool
- Understand how to deploy Plug-Ins to a production environment using Solutions
- Understand the need for custom business logic and Plug-In's in Microsoft Dynamics 365 CE Version 9

Module 4: Developing Custom Workflow Activities

In this module, you will learn how to develop a custom Workflow Activity using Microsoft .Net C# in Visual Studio. You will also learn how to use a custom Workflow Activity as a Workflow Step in Microsoft Dynamics 365.

Lessons

- Introduction to Custom Workflow Activities
- Writing Custom Workflow Activity code
- Deploying a Custom Workflow Activity

Lab: Create a Custom Workflow Activity

- Set up the Visual Studio Project
- Create a Custom Workflow Activity
- Sign and Build the Assembly
- Deploy a Custom Workflow Activity
- Create a Workflow
- Test your Custom Workflow Activity



After completing this module, students will be able to:

- Know how to set up a Visual Studio project to start creating a custom Workflow Activity
- Be familiar with the process to create and deploy a custom Workflow Activity using the Plug-In Reg
- Understand how to use a custom Workflow Activity in Dynamics 365 Processes
- Understand the need for custom Workflow Activities in Microsoft Dynamics 365 CE Version 9

Module 5: Developing Client-side Code

This module introduces the concepts of developing client-side code that works with the event-driven model in Microsoft Dynamics 365. You will also learn how to create and deploy client-side components using Web Resources that use the Web API to work with data in Microsoft Dynamics 365.

Lessons

- Introduction to client-side coding
- The Dynamics 365 Event Driven Model
- Developing JavaScript Client-side code
- Using Web resources
- Client-side coding and the Web API

Lab: Writing a JavaScript Event Handler

- Write a JavaScript Function
- Create a JavaScript Web Resource
- Configure the Event Handler
- Test your JavaScript Code

Lab: Create and deploy a client-side Component

- Write Client-side code for the Web API
- Create a HTML Web Resources
- Customize Dynamics 365
- Test your client-side Component

After completing this module, students will be able to:

- Know how to write client-side code for the Dynamics 365 Event Model for Web and UCI Apps
- Be familiar with the concept of Web Resources and how to create HTML and JavaScript components
- Understand how to use authenticate and execute commands against the Web API using client-side code
- Understand the concept of client-side coding in Microsoft Dynamics 365 CE Version 9

Module 6: Developing for the United Client Interface

This module looks at the relationship between Dynamics 365 and PowerApps and considers what a developer needs to know when extending a Unified Client Interface (UCI) App.



Lessons

- Introduction to Dynamics 365, UCI and PowerApps
- Introduction to the App Designer
- Introduction to the Site Map Designer
- Extending UCI Apps with code
- Security Enabled Apps
- Customize the Dynamics 365 Navigation
- Draft and Published Apps

Lab: Extend a Unified Client Interface (UCI) App

- Extend a Unified Client Interface (UCI) App with code
- Test your code

After completing this module, students will be able to:

- Know how to customize the Dynamics 365 navigation using the Site Map Designer
- Know how to extend UCI Apps using client-side code
- Know how to publish a security-enabled custom UCI App using the App Designer
- Be familiar with creating UCI Apps using the App Designer Tool in Dynamics 365 CE Version 9

For any query [Contact Us - MicrotekLearning](#)

