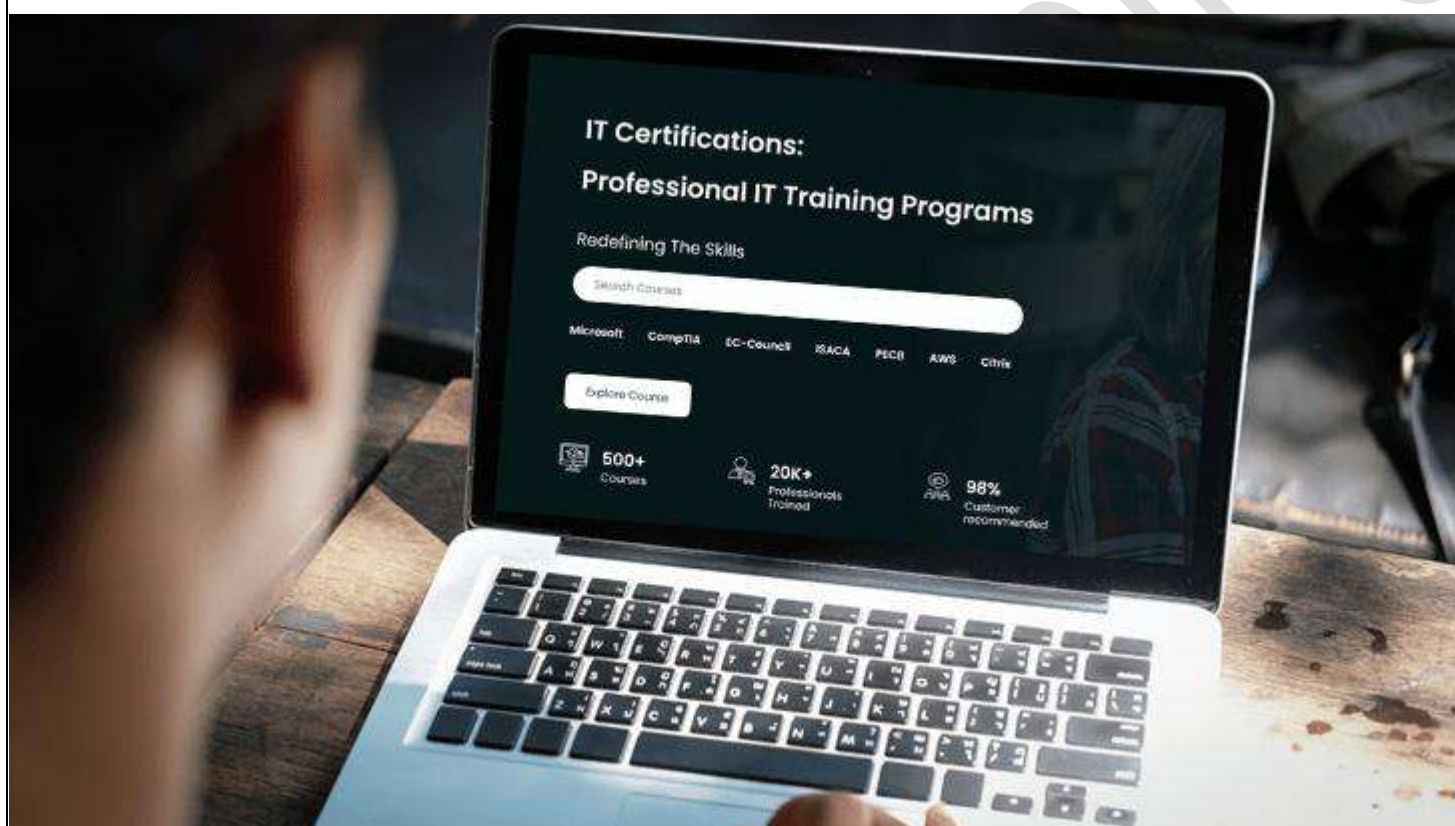




Redefining The Skills



55259: MICROSOFT DYNAMICS 365 CUSTOMER ENGAGEMENT FOR DEVELOPERS TRAINING

Duration: 3 Days

Course Description

55259: Microsoft Dynamics 365 Customer Engagement for Developer Training is a program focused on experienced IT professionals and developers. This course primarily focuses on teaching development techniques and approaches that can be applied to Microsoft Dynamics 365 and Power Platform.

This program also extends an intensive approach towards Model-Driven Apps and Canvas, PCF, implementing business logic, and API object models.

By taking the course by Microtek Learning we teach students about writing both server and client-side code to create custom business logic in Custom Workflow Activity and Plug-ins. This also broadens to HTML and Enterprise JavaScript Web Resources to extend the event model of Dynamics 365.

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

Who should attend this course?

- This training is designed for Developers, Technical Students, and Administrators.
- Please note it is recommended that students applying for this course should have prior working knowledge of Visual Studio and Microsoft.Net.

What you will learn

- Understanding the tools and features of Microsoft Dynamics 365 Customer Engagement for Developers
- Writing both client and server-side code to run commands, read and write data from and to Microsoft Dynamics 365
- The building, deploying, and debugging custom business logic in Plug-In components
- Downloading and using developer tools and resources like the XRM assembly references, NuGet Packages, Code Generation Tool, Customer Engagement Toolkit, Plug-In Profiler, and Plug-In Registration Tool
- Building apps that implement code to interact with multiple API's available to developers in the Microsoft Dynamics 365 Framework
- Setting up projects in Visual Studio to develop code for Dynamics 365
- Building custom UCI and web apps that interact with Dynamics 365 operations and data
- Customizing the navigation in Microsoft Dynamics 365
- Using the client-side code and Web API to create custom controls and form sections using HTML Web resources
- Extending Dynamics 365 Processes by creating custom Workflow Activities
- Utilizing Web Resources and JavaScript Libraries to extend the field and form the event-driven model in Microsoft Dynamics 365
- Understanding the best practices for writing and extending code for Microsoft Dynamics 365
- Using the Site Map Designer and App Designer to build custom Model-driven apps

Prerequisites

- Professionals pursuing this course should have basic knowledge of Microsoft.Net and Visual Studio.

Recommended

- [M55250: Introduction to Microsoft Dynamics 365](#)

Curriculum

Module 1: Introduction to Dynamics 365 Development

This module introduces the concept of extending Microsoft Dynamics 365 Customer Engagement Apps and Power Apps using Pro Code development. You will learn about the tools and resources that are available to Pro Code Developers as well as best practice methodologies and fundamentals.

Lessons

- Dynamics 365 and Power Platform Overview
- App Makers vs Pro Developers
- Pro Code Developer Options
- Development Tools
- The Customer Engagement Toolkit
- Environments and Solutions
- Security Considerations
- Application Lifecycle Management
- Valuable Skills
- Further reading and resources

After completing this module, students will be able to:

- Describe the key features and tools available to developers in Microsoft Dynamics 365 Power Platform
- Be familiar with the developer resources and how to set up your development environment
- Understand the key skills required to develop and extend the Power Platform
- Know where to find help and further reading resources

Module 2: Working with the Dataverse using the API

This module presents the various API options that are available to developers in connect to a interact with the Dataverse programmatically. You will learn how to write server-side and client-side code to consume the API endpoints.

Lessons

- Introduction to API programming
- 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 QueryExpression Class
- Using LINQ

After completing this module, students will be able to:

- Be familiar with the various API's available to connect to the Dataverse
- Understand how to write server-side and client-side code to utilize the API's
- Be able to set up Microsoft Visual Studio to start developing code against the API's
- Know how to authenticate, connect and perform CRUD based operations programmatically against CDS.

Module 3: Developing Client-side Code

This module introduces the concepts of developing client-side code that works with the event driven Client API Object Model in Microsoft Dynamics 365 Model-driven Apps. 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 the Dataverse.

Lessons

- Introduction to Client-side coding
- The Client-side Events
- The Client API Object Model
- Using Web resources

After completing this module, students will be able to:

- Understand the concept of the Client API Object Model and client-side coding
- Know how to write client-side code to extend Model-driven Apps
- Be familiar with the concept of how to write JavaScript functions
- Deploy HTML and JavaScript Web Resources

Module 4: Developing Plug-Ins

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 the Dataverse 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

After completing this module, students will be able to:

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

Module 5: 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 Dynamics 365 Model-driven App.

Lessons

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

After completing this module, students will be able to:

- Understand the need for custom Workflow Activities in Microsoft Dynamics 365 CE Version 9

- 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 Registration Tool
- Understand how to use a custom Workflow Activity in Dynamics 365 Processes

Module 6: Extending PowerApps

This module looks at the possibilities when using Custom Controls in Model-driven Apps to extend the out of the box functionality, including embedding Canvas Apps inside of Model-driven Apps.

Lessons

- Introduction Custom Controls
- Extending Model-driven Apps with Canvas Apps
- Embedding Canvas Apps as Custom Controls

After completing this module, students will be able to:

- Be familiar with Custom Controls
- Understand how to configure Model-driven Apps and Canvas Apps to use Custom Controls
- Understand the process to configure Custom Controls

Module 7: The PowerApps Component Framework (PCF)

This module extends on the previous module as we look into creating custom components for Model-driven Apps and Canvas Apps using the Power Apps Component Framework (PCF).

Lessons

- Introduction to PCF
- The PCF Command Line Interface (CLI)
- Creating PCF Components
- The PCF Test Environment
- Deploying PCF Components in a Model-driven App

After completing this module, students will be able to:

- Understand the need for custom components and controls in Model-driven and Canvas Apps
- Know how to set up your project to start creating a custom PCF control
- Be familiar with the process to write, deploy and test PCF controls using the Power Apps CLI
- Know how to deploy a PCF control in Power Apps
- Understand how to deploy PCF controls to a production environment

Module 8: Developing Custom Connectors

This module looks at how Pro Developers can create Custom Connectors in the Power Apps Maker Portal to then be used by App Makers in Model-driven Apps and Canvas Apps to connect to external data sources and systems.

Lessons

- Connectors Overview
- Custom Connectors
- Process to create a Custom Connector

After completing this module, students will be able to:

- Understand the need for Custom Connectors
- Know how to start creating a Custom Connector
- Understand how to set up Azure when building and securing Custom Connectors
- Know how to configure a Custom Connector in the Power Apps Maker Portal

- Understand how to share a Custom Connector

Module 9: Application Lifecycle Management (ALM)

In this module we look at the Application Lifecycle Management (ALM) options that are available to help manage and support a Dynamics 365 Power Platform deployment. The Microsoft Power Platform Build Tools and the Power Apps Center of Excellence Starter Kit are also presented in this module.

Lessons

- Introduction to ALM
- Environments and Solution Management
- Microsoft Power Platform Build Tools
- The Power Apps Center of Excellence

After completing this module, students will be able to:

- Understand the need for ALM governance frameworks for Microsoft Power Platform Solutions
- Understand the benefits of implementing Microsoft Power Platform Build Tools for Azure DevOps
- Be familiar with the monitoring, governance and nurturing tools and dashboards available through the Power Apps Center of Excellence

For any query Contact Us – Microtek Learning
