

CRM Developer Extending for Dynamics 365

Course Level: 400

This instructor-led course provides a detailed understanding of when and why to extend CRM with custom code and what custom code options are supported through the Software Development Kit (SDK). Attendees will learn best practices while leveraging hands-on labs to create and deploy web resources, as well as create and deploy plugins and JavaScript. In addition, attendees learn to efficiently create, debug, and test plug-ins and custom workflows to enable faster work. From the client side, they'll learn to create and debug advanced functionality using HTML alongside REST and SOAP requests. Finally, topics like solution management, source control, and deployment will be covered.

DYNAMICS 365
UNIVERSITY 



At A Glance:

CRM Developer Extending for Dynamics 365

Why Enroll?

Train developers on the advanced skills necessary to develop within Dynamics 365 to extend the functionality.



Who to Enroll?

Developers – Customizers with Existing - Development Skills



Key Takeaways

Team Foundation (Work Load); Development Skills; Web Resources; End Points; CRUD Operations; Extending Using Plugins; Extending Processes; Debugging & Exception Handling; Unit Testing; Azure; Xamarin



Register

Register for a CRM Developer Extending today!

[Click to Register.](#)

About this Training



Intended Audience

This training is intended for administrators, configurators, and developers who have completed the CRM Developer Environment training and desires to continue their technical education with Microsoft Dynamics 365. This course assumes working knowledge of skills outlined in the CRM Citizen Developer and CRM Developer Environment courses, as well as an introductory level understanding of application development and the skills associated. This course is designed to provide a deeper understanding of how to extend Dynamics 365 as a developer.



Recommended Prerequisites

Prerequisites are recommendations, and while not required, they are *highly* advised to ensure a successful learning experience:

- Visual Studio License or Free Trial - Visual Studio Community will work, some labs are impacted by not being able connect to TFS (*Required*)
- Microsoft Azure Account with Subscription
- Dynamics 365 University - Boot Camp or equivalent application experience
- Dynamics 365 University - Citizen Developer Course
- Dynamics 365 University - Developer Environment
- Technical Understanding of Dynamics 365
- Development Skills

Key Takeaways

This Training Will Allow You To:

- Understand how to connect using Visual Studio
- Understand & Configure how my work would be tracked in Team Foundation Services
- Understand how my existing development skills will be leveraged
- Understand development best practices
- Understand and leverage available End Points
- Execute CRUD Operations against organization
- Design & Implement a Plugin
- Design & Implement a Custom Workflow Activity
- Understand debugging approach
- Process exceptions and trace logging
- Create and manage unit tests
- Understand Azure and its role with Dynamics 365
- Create and update Azure WebJob
- Create and understand Azure Function
- Understand and setup Xamarin Development Environment using Visual Studio 2015



DAY 1



DAY 2



DAY 3



DAY 4



DAY 5

SOLUTION DEEP DIVE

Introduction

Solution Deep Dive

- Training package deployment
- Solution management

VISUAL STUDIO

Visual Studio

- Setup
- Visual Code
- Node.js

DEVOPS

DevOps

- Overview
- Setup

DEVELOPER GUIDE

Developer Guide

- Dev Toolkop
- Dev Extensions
- Manage Nuget
- CrmSrvUtil
- Plugin Registration Tool



DAY 1



DAY 2



DAY 3



OTHER TOOLS

Other Tools

- Metadata Browser
- XRM Toolbox
- Ribbon Command Bar
- CRM Rest Builder
- Postman

TENANT ADMINISTRATION

Tenant Administration

- Portal Admin
- Data Export
- Performance Optimization
- Pipeline
- Custom Workflow Activities

COMMON DATA SERVICE

Common Data Service

- Power Platform Portal
- Organization Analytics

INTEGRATION & REPORTING ENVIRONMENT SETUP

Integration

- Overview & Best Practice
- Office Integration
 - SharePoint
 - OneNote
 - OneDrive
 - O365 Groups
 - Document Integration
- Query Functions

Reporting Environment Setup

- SQL Data Tools
- Report Authoring Extensions
- Power BI



DAY 1



DAY 2



DAY 3



DAY 4



DAY 5

EXTENSIBILITY OVERVIEW

USER EXPERIENCE

DATA MODELING

CLIENT SCRIPTING

Introduction
Dynamics 365 Extensibility Overview

Building a Good User Experience

- Site Maps & App Modules
- Command Bar & Ribbons
- Forms

Data Modeling

- Entity Design Exercise
- Calculated & Rollup Fields

Client Scripting

- Business Rules
- Client API & Scripting
- JavaScript Libraries



DAY 1



DAY 2



DAY 3



DAY 4



DAY 5

WEB RESOURCES

Web Resources

- Overview
- Types
- Custom Control Framework

EXTENDING WORKFLOWS

Extending Workflows

- Synchronous vs Asynchronous
- Pipeline
- Custom Workflow Activities

BUSINESS PROCESS FLOW

Business Process Flows

- Overview
- Automation
- Concurrency
- Extending

WEBAPI & AUTHENTICATION

WebAPI

- Overview
- Methods & Options
- Query Functions

Authentication

- Architecture
- Registering Azure Apps
- Access Tokens
- Server to Server



DAY 1



DAY 2



DAY 3



DAY 4



DAY 5

SOLUTION DEPLOYMENT

Solution Deployment

- Packaging
- Patching
- Cloning

PLUGINS & CUSTOM ACTIONS

Plugins

- Overview & Org Service
- Developing
- Registering
- Testing & Debugging

Custom Actions

- Overview
- Parameters
- With Plugins

VIRTUAL ENTITIES

Virtual Entities

- Concepts & Capabilities
- Creating & Mapping

PORTALS & AZURE

Portals

- Setup
- Security
- Configuration Introduction

Azure

- WebJob
 - Schedule
 - Update
- Register Application
- Secure Configuration Keys
- Function

DYNAMICS 365 UNIVERSITY

Dynamics 365 University is designed to be **foundational training for those responsible for implementing and supporting Dynamics 365** within your organization. Dynamics 365 University focuses on out-of-the-box features and functionality **training for your core team**. Participants get an understanding of how the Dynamics 365 processes and architecture can be leveraged and customized to **support your unique organizational processes**.

[GET STARTED](#)