Dynamics CRM 365 Fast Track for Developers

# Suggestions for improvements

Author: Roger Hill

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# Introduction

I delivered the Dynamics CRM 365 Fast Track for developers course in Leeds from 12th-16th November 2018.

In the course of delivering this course I have identified a number of opportunities to improve the course material.

In a number of cases the course material has become out of data, and would benefit from updating to reflect current best practice. In some cases new features have become available, or existing features have either been deprecated, or no longer function.

The comments include both the PowerPoint slides and the course labs.

# PowerPoint slides

The course is structured in a set of 10 PowerPoint documents.

## Module 0

The introduction in this section is fine.

## Module 1

### Creating a Developer Environment

I would suggest Visual Studio 2017 rather than 2015.

Not sure that fiddler should be in this list

Should more clearly reflect that the SDK for v9.0 can now only come via NuGet.

Add CRMRestBuilder to the list of tools.

As a general point you should always suggest that developers download required Dll’s via nuget rather than instructing them to add links to dll’s on disk – this is done in some cases, particularly in the labs.

### Navigation – Sitemaps etc

Should add “Apps” a new feature since v8.

### Entity Forms

These recommend use of Xrm.Page API, although this is now deprecated.

Some of the notes are well behind the times, as these refer to Ajax and XmlHttpRequest when use should be being made of the Xml.WebApi interface.

### Processes

Note that Dialogs are now deprecated.

### Web Service access…

Remove reference to .asmx files – this has not been relevant for at least 8 years.

### Accessing the data tier

Remove reference to OData, this is being superseded by WebAPI

### Visualizations

I would suggest adding a couple of items here: -

* Word document templates
* Power BI
* Charts (in notes, but not slide)

### Resources

Note that SDK has changed, and is no longer available as a single download.

Slide needs to reflect this, also the use of nuget to obtain libraries, etc.

Add reference to CRMRestBuilder

Remove reference to XSD schemas.

## Module 2

### Dynamics Web Services…

I would remove recommendation in notes to directly reference dlls in the SDK.

### OrganzationService

Typo in title.

Some of the notes regarding service references are no longer relevant and should be removed.

### Creating the OrganizationService Proxy

Should refer to obtaining dlls via nuget, not hard coded references.

### Comparing Early and Late Bound Types

I would add some more commentary on the pros and cons of Early bound tpyes:-

* Early bindings can be very large.
* Development environment needs to be kept in sync with CRM
* XrmToolbox can generate bindings for just specific types, which helps to reduce the size of the code generated.

### OrganizationService – Retrieve

There needs to be a discussion of the issue around the number of attributes retrieved, and the load placed on the server.

### OrganizationService – Update

There needs to be a discussion about the impact of updates on the system, and unintended consequences that can arise.

### RetrieveMultiple – Paging

There are issues with paging and the retrieval of duplicate records that need to be pointed out.

### WebApi

This needs to mention CRMRestBuilder.

## Module 3

## Module 4

Needs to make clear that Dialogs are deprecated

There are various approaches to debugging custom workflow activities that shouldbe mentioned.

* Use of unit tests
* Using mocking frameworks such as FakeXrmEasy
* Logging to Plugin trace log

Declarative Workflows – I would remove this, as not relevant today.

## Module 5

### Pre/Post-Event Images

Add emphasis that plugins should be using the pre/Post image to get information about the primary entity, and not making SDK calls to retrieve data from CRM

### Debugging and Issues

Needs to mention use of Unit Tests and Faking libraries.

### Diagnostics

Add mention of use of the Audit log

### Azure Integration

I would reduce this section and remove content that is not directly relevant to CRM.

Include a worked example.

Add references to Virtual entities and webhooks

## Module 6

## Module 7

## Module 8

## Module 9

Add section on debugging approaches.

Use of Audit Log

Plugin trace log

Use of service account

# Course Labs