Microsoft Dynamics 365: Finance and Operations Apps Developer Study Guide Exam MB-500

Table of Contents

 Introduction to Dynamics 365 Finance and Operations Introducing Microsoft Dynamics 365

> Microsoft Dynamics 365 salient features Understanding Microsoft Dynamics 365 apps

> > Dynamics 365 Customer Service

Dynamics 365 for Finance and Operations apps

Dynamics 365 Business Central

Dynamics 365 Commerce

Dynamics 365 Human Resources Understanding Power Platform

Power Apps

Power BI

Power Automate

Common Data Service (CDS)

Microsoft AppSource Exploring Dynamics 365 for Finance and Operations What is Dynamics 365 for Finance and Operations?

Highlights of Dynamics 365 for Finance and Operations Dynamics 365 for Finance and Operations deployment options Dynamics 365 for Finance and Operations capabilities

Trial of Microsoft Dynamics 365 ERP implementation team structure

Implementation partner

ISV solution

Solution advisors

Summary

2. Methodology and Initiation

Why select a methodology? Methodologies to choose from The Conference Room Pilot methodology

Planning

Execution

Best practices in using CRP

The agile methodology

The waterfall methodology Project deliverables

The planning phase

Requirements of the definition phase

The analysis phase

The design phase

The configure phase

The development phase

The testing and acceptance phase

The training phase

The go-live phase

The support phase

Comparative summary

Project initiation

Project team composition Project backbone

Project charter

Project plan

Ground rules for a project team

Kickoff meeting

FastTrack

Best practices in project initiation

Summary

3. Lifecycle Services (LCS) and Tools

LCS

LCS tools

Project-specific tools Setting up a project in LCS

Tools for a solid project foundation

Methodologies LCS projects

Project onboarding Project users

Organization users and roles

Preview feature management

Usage profile/subscription estimator Shared asset library Asset library

SharePoint online Ongoing day-to-day activities

Business process modeler

Cloud-hosted environments

Code upgrade

Configuration and data manager

Translation service

Alert service Ongoing support

Issue search

LCS support options

Work items Environment monitoring

System diagnostics

Updates

Summary

4. Architecture, Deployment, and Environments Understanding architecture

> Conceptual architecture Deployment architecture

> > The cloud deployment architecture

On-premises deployment architecture Understanding application components and architecture

Working with identity management

Understanding the data layer components

Understanding the platform-layer components

Understanding the application layer components Understanding the client components

Browser client

Mobile app

Microsoft Dynamics 365 Unified Operations – mobile app

Office 365

Using LCS

Understanding development architecture

Understanding integration architecture

Understanding security architecture Understanding deployment options

Cloud

Local business data or on-premises

Comparing cloud and on-premises deployments Understanding cloud deployment and environment planning Type of environment

Tier-1 - Development or Build

Tier-2 - Standard Acceptance

Tier-3, Tier-4, and Tier-5 environments

Production

Project type and environments

Finance and Operations standard cloud offer

Summary

5. Requirements and Process Analysis

Requirements scoping Hierarchy of business processes and subprocesses

Business goals

Business process

Subprocesses

The requirements of the business process LCS BPM and Azure DevOps

Business process modeler Understanding Microsoft Azure DevOps

BPM and Azure DevOps sync

Continuous reporting and Azure DevOps/VSTS Requirement-gathering techniques

Listen

Lead

Negotiate

Requirements Traceability Matrix (RTM)

Requirement segmentation and ownership

Analysis of requirements

Solution blueprint

Key decision log

Best practices in managing requirements

Summary

6. Configuration and Data Management Explaining configuration management

Planning configuration management

The golden configuration environment Managing data migration

Scoping the data migration

Common data migration areas

Planning data migration

Executing the data migration

Introducing data management tools The data management framework Data management concepts

The data management workspace

Data entities Configuration data templates

Default data templates

Configuration data project

Data packages LCS Project | Asset library | Data packages

Configuration data packages

LCS – configuration and data manager

Process data packages

How these concepts come together

Database operations

Cross-company data sharing Data management scenarios

Initial configuration in a blank environment

Data migration from legacy systems

Copying the company configuration within an existing environment

Copying data between environments

Ad hoc data loading

Best practices in managing configurations and data migration Summary

7. Solution Planning and Design

Finding the right app for your business needs

Before choosing ISV solutions

After selecting the ISV partner Understanding common product features

Personalization

Integrating with Office

Document handling

Using workspaces

Electronic Reporting

Tax engine

Configurable business documents

Batch framework

Workflows

Database logging

The Finance and Operations mobile application

Common Data Services, Power Automate, and Power Apps

The solution design document

Overview and objectives

Guidelines for the SDD The functional design document

The fit-gap review session

Why write an FDD?

Project management aspects of design

Things to know before writing an FDD

Dos and don'ts

The technical design document

Guidelines for the TDD

Things to consider while writing TDDs

Summary

8. Integration Technologies, Planning, and Design Basic web integration concepts

> RESTful APIS SOAP APIS

> > SOAP versus REST

JSON message format

OData protocol

OAuth authentication model

Event-driven architecture

Learning about the integration architecture Integration concepts in Finance and Operations Data entities

What is a data entity?

OData services

Querying or browsing an OData endpoint Consuming OData services

Client application registration and setup

Creating a project, adding libraries, and generating an OD

ata service proxy

Authentication and OData service call

Custom services Business events

Business events catalog

Business events endpoints

Business events processing

Available business events and extensibility

Benefits and use cases

Data feeds

Dual-writes

Data management and the batch data API

Azure Data Lake Storage Gen2 integration Integration scenarios and planning

Integration scenarios

Integration requirements

Synchronous or asynchronous?

Integration strategy Integration middleware/messaging services

Logic Apps

Power Automate

Event Hub, Event Grid, and Service Bus

Azure Storage/Azure Data Lake

Recurring integrations scheduler Integration design and development

Developing a high-level conceptual design

Selecting the right integration technology

Defining field mapping

Developing, configuring, and testing

Best practices and recommendations

Summary

9. Customization and Extension

Understanding solution architecture and development concepts
Programming language

Compiling exclusively in .NET CIL

Language enhancements

Unit of compilation

Integrated development environment (IDE)

Development IDE in Dynamics 365 for Finance and Operations

Development environment architecture

Programming concepts

Models

Packages

Packages and models on disk

Models and packages in Visual Studio

Overlayering

Extensions Understanding the development environment Version control

> Branching strategies Development machines

> > Cloud development environment

Local development environment Application Explorer

Application Explorer views

Filtering the Application Explorer

Working with elements

Tools Addins for Visual Studio Creating a new model to start the customization process

Extension capabilities

Project

Creating a new project

Adding new or existing elements to the project

Import/export project

Development planning

Be agile

Establishing the code review process Development process

Conceptualization

Create or extend the data model

Create or extend business logic Create or extend the user interface

Form patterns

User interface extensibility

Control extensibility

Reporting and analytics

SQL Server Reporting Services (SRSS)

Power BI

Security

Security for custom objects

Acceptance test library (ATL) resources

Learn and improve

Build and continuous updates

Automated build

Continuous updates

Guidelines and best practices

Summary

10. Analytics, Business Intelligence, and Reporting

Gathering reporting and analytics requirements Reporting scenarios and tools Operational reporting

Operational workspace

Inquiry pages and exporting to Excel

Operational SSRS reports

Analytical workspaces for operational reporting Regulatory and tax reporting

Exploring ER Business/commercial documents

SSRS business documents

Business document management Financial reporting

Row definition

Column definition

Reporting tree definition

Report definition Analytical reporting

Analytical Power BI reports Analytics data strategy and data integrations

Using the Entity store

Bring your own database Moving from relational databases to Azure Data Lake Learning about fundamental Azure data technologies

Azure Data Lake Storage Gen2 (ADLS)

Common data model folder (CDM folder)

Azure Data Factory

Azure Synapse analytics and SQL On-Demand

Entity store in Azure Data Lake

Replacing BYOD and the Entity store in Data Lake using data feeds

Best practices in analytics and information insights

Summary

11. Testing and Training

The importance of testing Types of testing Feature testing

Testing of custom-developed features

Testing of standard and ISV solution features System integration testing

Process/system testing

Data migration testing

Integration testing

Performance/load testing

User acceptance testing

End-to-end testing

Continuous update testing

Automated testing strategies Test automation features in Finance and Operations RSAT

RSAT prerequisites

Azure DevOps Test Manager

Windows configuration

RSAT and Selenium

RSAT configuration

RSAT test case execution

Acceptance Test Library

Data task automation

SysTest framework

Task recorder-based (Coded UI) testing

PerfSDK

Integrating a test with a build process Test-planning guidelines and recommendations

> Test planning and scenarios User acceptance test (UAT)

> > Planning

UAT kickoff

Execution

Sign-off End-to-end test planning and execution

Execution and real-life examples

Training

Training and the help system

Modern clients and navigation concepts

In-product help

Business process modeler (BPM)

Task recorder and task guides

Documentation website Planning and executing training

Training plan

Training preparation

Training environment

Change management

Summary

12. Managing Go-Live and Post Go-Live

Learning about the production environment and responsibilities

Understanding cloud deployment

Looking at the on-premises deployment option

Understanding go-live activities Exploring the organization's readiness to go-live

Sign-offs

The decision to go live

Business contingency planning Understanding go-live planning and execution

Planning

Executing a release

The importance of communication Learning about post go-live support

Glancing on resources for support

Understanding support tools and LCS

Learning about production environment support with Microsoft

Integrating support analytics with monitoring and diagnostics

Best practices in post go-live support

Summary

13. One Version Service Updates

Exploring One Version

- Principles of One Version
- Update availability

Update early adoption

Service updates

Quality updates

One Version service update FAQs

Understanding feature management The feature management workspace Turning on a feature Turning off a feature Check for updates

Summary

Introduction to Dynamics 365 Finance and Operations

Every organization needs a system of records to manage data, control it, and use it for their growth. This often leads to embracing business applications for managing their resources well and to keep improving the business process. With cloud computing providing so many benefits, such as flexibility, efficiency, security, and more uptime, organizations are now looking to go for digital transformation to move from on-premises business applications to cloud-enabled business applications.

Dynamics 365 is a cloud service offering from Microsoft, combining several business needs into a single, scalable, and agile platform, allowing organizations to bring in this much-needed digital transformation.

This chapter will introduce you to Microsoft Dynamics 365 and share the details of various apps, solution elements, buying choices, and complementary tools. We hope you will get an insight into the various tools, offerings, and options provided by Microsoft in Dynamics 365. This may help you in your business transformation initiatives and solution and platform evaluation, spanning **customer relationship management (CRM)**, **enterprise resource planning (ERP)**, and **business intelligence (BI)**.

Let's explore the topics we are going to cover in this chapter:

- What is Microsoft Dynamics 365?
- Microsoft Dynamics 365 apps
- Exploring Power Platform
- Complementing/supporting tools with Microsoft Dynamics 365
- Dynamics 365 for Finance and Operations apps
- App source

Introducing Microsoft Dynamics 365

In the business application world, business leaders are always looking for a better business process automation to achieve digital transformation. The biggest challenge to achieve this is having various applications trying to work together to solve business process automation. Microsoft, for the past several years, has been focused on solving this problem by building intelligent applications infused with AI and analytics capabilities; these applications are built for a very specific purpose but, at the same time, can talk to each other and exchange data seamlessly.

Microsoft Dynamics 365 is the next generation of intelligent business applications in the cloud offered by Microsoft. It enables end-to-end business processes driven by unified navigation, has a core user experience in how these applications look and feel, and allows seamless integration with each other. Microsoft Dynamics 365 further extends Microsoft's commitment to being a cloud-committed company bringing in world-class business apps together in their overall cloud offering. These Dynamics 365 applications can be independently deployed. A customer can start with what they need, and as the business demands, they can adopt additional applications. Since its inception, Microsoft is making continuous efforts to make it better each day.

Microsoft Dynamics 365 has gained a lot of traction since its inception, and more and more companies are now adapting the applications from the Microsoft Dynamics 365 suite. Let's now explore the key deciding factors for adopting Microsoft Dynamics 365 in your organization's digital transformation journey, with the help of its usage benefits and salient features.

Microsoft Dynamics 365 salient features

What makes Microsoft Dynamics 365 stand apart from its competition and an enabler for organizations lies in its features, capabilities, and offerings.

Here's a quick glance at the salient features of Dynamics 365:

- A cloud-driven, browser-based application
- Seamlessly integrated with Office 365, all out of the box, to increase productivity and stand apart from others
- Built-in intelligence for predictive analysis and decision-making support
- Quick-to-adapt and easy-to-use business applications
- Releveled and revolutionized the traditional approach toward business solutions
- Easy to adopt new updates released by Dynamics 365 team

Dynamics 365 is the next generation of intelligent business applications in the cloud (public and private) as well as on-premises, expected to transform how businesses use technological solutions to achieve their goals.

Understanding Microsoft Dynamics 365 apps

The Microsoft Dynamics 365 approach to business applications unifies Microsoft's current CRM and ERP cloud solutions into one cloud service with new purpose-built business applications that work together seamlessly to help you to manage specific business functions.

Let's now get an insight at a high level into the various apps available in the Dynamics 365 family. Let's look at some of these apps, along with Dynamics 365 for Finance and Operations.