



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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# MS-600T00: Building applications and solutions with Microsoft 365 core services

<b>CODE:</b>	<b>DURÉE:</b>	<b>PRIX H.T.:</b>
MCS_MS600T00	35 Hours (5 Jours)	€3,240.00

## Description

This course covers five central elements of Microsoft 365 platform – implementing Microsoft Identity, working with Microsoft Graph, extending and customizing SharePoint, extending Teams, and extending Office. In this course, students will learn how to implement Microsoft Identity and work with Microsoft Graph. Students will also gain the knowledge on UI elements (including Adaptive Cards and UI Fabric), Integration Points (including Microsoft Teams, Office Add-ins, SharePoint Framework, Actionable Messages), and determining workload platform targets. In implementing Microsoft Identity, students will learn to implement Microsoft identity including registering an application, implanting authentication, configuring permissions to consume an API, and creating a service to access Microsoft Graph. In working with Microsoft Graph, students will learn how to access user data, explore query parameters, manage a group lifecycle, access files, and optimize network traffic using Microsoft Graph. In extending and customizing SharePoint, students will learn about SharePoint Framework web parts, extensions, and how to package and deploy a SPFx solution. In extending Teams, students will look at the components of a Teams App, work with webhooks, tabs, and conversational bots. In extending Office, students work with Office Add-ins, task pane add-ins, JavaScript APIs, Office UI Fabric, and actionable messages with adaptive cards.

## Audience

Students in this course are interested in Microsoft 365 development platform or in passing the Microsoft 365 Developer Associate certification exam. Students should also have 1-2 years experience as a developer. This course assumes students know how to code and have a basic understanding of REST APIs, JSON, OAuth2, OData, OpenID Connect, Microsoft identities including Azure AD and Microsoft accounts, Azure AD B2C, and permission/consent concepts.

## Prérequis

Before attending this course, students should have:

1-2 years experience as a developer. This course assumes students know how to code and have a basic understanding of REST APIs, JSON, OAuth2, OData, OpenID Connect, Microsoft identities including Azure AD and Microsoft accounts, Azure AD B2C, and permission/consent concepts.

It is recommended that students have some experience developing solutions on Microsoft Teams, Office Add-ins, or SharePoint Framework through all phases of software development.

## Programme

### Module 1: Implement Microsoft Identity

In this module, you will learn to implement Microsoft identity including registering an application, implanting authentication, configuring permissions to consume an API, and creating a service to access Microsoft Graph.

#### Lessons

Getting Started with Microsoft Identity

Application types in Microsoft identity

Permissions and Consent Framework

Secure custom APIs with Microsoft Identity

Work with users, groups, and roles in custom apps and APIs

Lab : Implement Microsoft identity

Exercise - Different types of tokens used in Microsoft identity

Exercise - Single-page apps

Exercise - Web apps that sign in users and call APIs

Exercise - Daemon and non-interactive apps

Exercise - Understanding permissions and the consent framework in the Microsoft identity platform

Exercise - Delegated permissions and consent

Exercise - Application permissions and consent  
Exercise - Create and secure a web API with Microsoft identity  
Exercise - Call secured APIs from web applications  
Exercise - Call secured APIs from daemon apps  
Exercise - Create and secure a web app with Microsoft identity  
Exercise - Utilize security groups in custom apps and APIs secured with Microsoft identity

Exercise - Leverage application roles in custom apps  
After completing this module, students will be able to:

Register an application in Azure AD  
Implement authentication  
Configure permissions to consume an API  
Create a service to access Microsoft Graph

Module 2: Build apps with Microsoft Graph

In this module you will learn how to access user data, explore query parameters, manage a group lifecycle, access files, and optimize network traffic using Microsoft Graph.

Lessons

Optimize data usage with query parameters  
Optimize network traffic with Microsoft Graph  
Access user data from Microsoft Graph  
Manage Group lifecycle with Microsoft Graph  
Access Files with Microsoft Graph  
Use change notifications and track changes with Microsoft Graph  
Lab : Build apps with Microsoft Graph  
Exercise - Retrieve and control information returned from Microsoft Graph  
Exercise - Expand related entities and search content in Microsoft Graph  
Exercise - Reduce traffic with batched requests  
Exercise - Understand throttling in Microsoft Graph  
Exercise - Avoid throttling and implement throttling strategies  
Exercise - Eliminate polling Microsoft Graph with the delta query  
Exercise - Working with users in the organization  
Exercise -User profiles and related users  
Exercise - Modifying users  
Exercise - Working with groups in the organization  
Exercise - Users and their groups  
Exercise - Manage group lifecycle  
Exercise - Access and download files from OneDrive  
Exercise - Uploading files to OneDrive  
Exercise - Work with file relationships and trends in OneDrive  
Exercise - Azure AD apps .NET core web APIs  
Exercise - Microsoft Graph change notifications  
Exercise - Track changes with Microsoft Graph

After completing this module, students will be able to:

Access user data with Microsoft Graph  
Work with data using queries on Microsoft Graph  
Manage a group lifecycle on Microsoft Graph  
Optimize network traffic using Microsoft Graph

Module 3: Extend Microsoft 365

In this module you will learn about SharePoint Framework web parts, extensions, and how to package and deploy a SPFx solution. You will also work with Office Add-ins, task pane add-ins, JavaScript APIs, Office UI Fabric, and actionable messages with adaptive cards.

Lessons

Introduction to customizing and extending SharePoint  
Introduction to Office client customization with add-ins  
Lab : Extend Microsoft 365  
Exercise - Create and configure your SharePoint Online developer tenant  
Exercise - Interact with SPFx client-side web parts in modern sites

After completing this module, students will be able to:

Package and deploy a SharePoint Framework solution  
Utilize consumption of Microsoft Graph  
Work with web parts as Team Tabs  
Understanding fundamental components and types of Office Add-ins  
Understand Office JavaScript APIs  
Understand testing, debugging, and deployment options for Office Add-ins

Module 4: Develop apps for Microsoft Teams

In this module you will look at the components of a Teams App, work with webhooks, tabs, and conversational bots.

Lessons

Overview of building apps for Microsoft Teams  
Task-oriented interactions with messaging extensions  
Tabs in Microsoft Teams

Create interactive conversational bots  
Collect input with task modules  
Webhooks in Microsoft Teams  
The Microsoft Graph teamwork endpoint  
Authentication and single sign-on in Microsoft Teams  
Lab : Develop apps for Microsoft Teams  
Exercise - Create action command messaging extensions  
Exercise - Create search command messaging extensions  
Exercise - Implement link unfurling messaging extensions  
Exercise - Create a custom Microsoft Teams personal tab  
Exercise - Create a custom Microsoft Teams channel tab  
Exercise - Creating conversational bots  
Exercise - Bots in channels and group chats  
Exercise - Sending proactive messages from bots  
Exercise - Collecting user input with task modules  
Exercise - Using adaptive cards and deep links in task modules  
Exercise - Using task modules with bots  
Exercise - Creating outgoing webhooks  
Exercise - Creating incoming webhooks  
Exercise - Getting started with the teamwork endpoint  
Exercise - Configure a built-in tab with Microsoft Graph  
Exercise - Use Microsoft Graph to post to the activity feed  
Exercise - Implement single sign-on for Microsoft Teams apps  
Exercise - Implement single sign-on with Microsoft Teams tabs  
Exercise - Implement single sign-on with Microsoft Teams bots  
After completing this module, students will be able to:  
Recognize the components of a Teams App  
Work with webhooks in Microsoft Teams  
Create tabs in Microsoft Teams  
Create and register outgoing webhooks

## Informations supplémentaires

Skills gained:

- Implementing Microsoft Identity
- Working with Microsoft Graph
- Determining workload platform targets
- Integration Points, including Microsoft Teams, Office Add-ins, and SharePoint Framework

## Dates de session

Sur demande. [Merci de nous contacter](#)

## Informations Complémentaires

[Cette formation est également disponible sous forme de formation sur site. Veuillez nous contacter pour en savoir plus.](#)