



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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

CODE:	LENGTH:	PRICE:
MCS_MS600T00	40 Hours (5 days)	£2,995.00

### 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, implementing 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.

### Prerequisites

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, implementing 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

## Further Information

Skills gained:

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

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)