Building applications and solutions with Microsoft 365 core services (MS-600)

If you enroll in this course at the listed price, you receive a Free Official Exam Voucher for the MS-600 Exam. This course does not include Exam Voucher if enrolled within the Master Subscription, however, you can request to purchase the Official Exam Voucher separately.

About this course:

This course covers five central elements of Microsoft 365 platform â€" 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.

Course Objectives:

By actively participating in this course, you will learn about the following:

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

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:

- 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.

Course Outline:

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