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Developing Microsoft? SharePoint? Server 2013 Core Solutions

CODE:	DURÉE:	PRIX H.T.:
MCS_20488	40 Hours (5 Jours)	€2,775.00

Description

In this course, students learn core skills that are common to almost all SharePoint development activities. These include working with the server-side and client-side object models, developing and deploying features, solutions, and apps, managing identity and permissions, querying and updating list data, managing taxonomy, using workflow to manage business processes, and customizing the user interface.

Objectifs

After completing this course, students will be able to:

- Design and manage features and solutions.
- Develop code for custom server-side components.
- Manage and customize authentication and authorization.
- Create custom sites and lists and manage the site lifecycle.
- Explain the capabilities and design choices for SharePoint apps.
- Use the client-side object model and the REST API.
- Develop provider-hosted and auto-hosted SharePoint apps.
- Distribute and deploy SharePoint apps.
- Create custom workflows to automate business processes.
- Use fields and content types to manage taxonomy.
- Customize the appearance and behavior of user interface elements.
- Customize navigation and site branding.

Audience

The course is intended for professional developers who develop solutions for SharePoint products and technologies in a team-based, medium-sized to large development environment. While some familiarity with SharePoint solution development is required, candidates are not expected to have prior experience with the new features in SharePoint Server 2013.The ideal candidate is a technical lead with at least four years of SharePoint and web development experience. The candidate is responsible for designing custom code for projects that are deployed to or interact with SharePoint environments. This includes:

- Selecting an appropriate approach and building customizations in SharePoint.
- Creating and implementing a strategy for solution packaging, deployment, and upgrading.
- Identifying SharePoint data and content structures for customizations.
- Performing diagnostics and debugging.
- Planning and designing applications for scalability and performance.
- Identifying and mitigating performance issues of customizations.
- Understanding authentication and authorization.
- Experience with Windows PowerShell.
- Broad familiarity with SharePoint capabilities.
- Familiarity with Online Services such as Azure and SharePoint Online.

Prérequis

Before attending this course, students must have:

- A working knowledge of using Visual Studio 2010 or Visual Studio 2012 to develop solutions.

- A basic working knowledge of SharePoint solution development, either in SharePoint 2013 or in earlier versions of SharePoint.
- A working knowledge of Visual C# and the .NET Framework 4.5.
- A basic understanding of ASP.NET and server-side web development technologies, including request/response and the page lifecycle.
- A basic understanding of AJAX and asynchronous programming techniques.
- A basic working knowledge of client-side web technologies including HTML, CSS, and JavaScript.
- Familiarity with approaches to authentication and authorization, including claims-based authentication.

Programme

Course OutlineModule 1: SharePoint as a Developer PlatformThis module examines different approaches that can be used to develop applications with SharePoint Server 2013 the scenarios in which each approach might be appropriate.Lessons

- Introducing the SharePoint Developer Landscape
- Choosing Approaches to SharePoint Development
- Understanding SharePoint 2013 Deployment and Execution Models

Lab : Comparing Web Parts and App PartsAfter completing this module, students will be able to:

- Describe the opportunities for developers in SharePoint Server 2013.
- Choose appropriate execution models for custom SharePoint components.
- Choose appropriate deployment models for custom SharePoint components.

Module 2: Working with SharePoint ObjectsThis module introduces the server-side SharePoint object model and how the core classes relate to sites and collections. The server-side SharePoint object model provides a core set of classes that represent different items in the logical architecture of a SharePoint deployment. Students also learn how manage permissions for server-side code.Lessons

- Understanding the SharePoint Object Hierarchy
- Working with Sites and Webs
- Working with Execution Contexts

Lab : Working with Sites and WebsLab : Working with Execution ContextsAfter completing this module, students will be able to:

- Explain the purpose of key classes in the server-side SharePoint object model.
- Programmatically interact with SharePoint site collections and sites.
- Adapt solutions for users with different levels of permissions.

Module 3: Working with Lists and LibrariesThis module explains how to interact with lists and libraries. Students learn about how to work with lists and libraries programmatically using the server-side SharePoint object model and how to use query classes and LINQ to SharePoint to query and retrieve data from SharePoint lists. Student also learn how to efficiently work with lists that contain large numbers of items.Lessons

- Using List and Library Objects
- Querying and Retrieving List Data
- Working with Large Lists

Lab : Querying and Retrieving List DataLab : Working with Large ListsAfter completing this module, students will be able to:

- Interact with lists and libraries programmatically.
- Query and retrieve list data.
- Perform operations efficiently on large lists.

Module 4: Designing and Managing Features and SolutionsThis module examines creating and deploying custom Developing a SharePoint solutions and features. The students also learn how and when to use sandbox solutions.Lessons

- Understanding Features and Solutions
- Configuring Features and Solutions
- Working with Sandboxed Solutions

Lab : Working with Features and SolutionsAfter completing this module, students will be able to:

- Explain the purpose and key functionality of Features and solutions.
- Configure and manage Features and solutions.
- Create and manage sandboxed solutions.

Module 5: Working with Server-Side CodeThis module describes how to develop and deploy Web Parts and event receivers in a

solution.Lessons

- Developing Web Parts
- Using Event Receivers
- Using Timer Jobs
- Storing Configuration Data

Lab : Working with Server-Side CodeAfter completing this module, students will be able to:

- Describe the process for developing a web part.
- Use event receivers to handle SharePoint events.
- Use timer jobs to perform out of process, and scheduled operations.
- Store and manipulate configuration data for custom components.

Module 6: Managing Identity and PermissionsThis module describes how manage permissions through code and customize authentication using custom claims providers.Lessons

- Understanding Identity Management in SharePoint 2013
- Managing Permissions in SharePoint 2013
- Configuring Forms-Based Authentication
- Customizing the Authentication Experience

Lab : Managing Permissions Programmatically in SharePoint 2013Lab : Creating and Deploying a Custom Claims ProviderAfter completing this module, students will be able to:

- Describe how authentication and identity management work in SharePoint 2013.
- Verify and manage permissions programmatically in SharePoint 2013.
- Create and configure custom membership providers and role managers for forms-based authentication.
- Create claims providers and customize the sign-in experience.

Module 7: Introducing Apps for SharePointThis module introduces the SharePoint App, a new way to customize SharePoint functionality with SharePoint Server 2013. Lessons

- Overview of Apps for SharePoint
- Developing Apps for SharePoint

Lab : Creating a Site Suggestions AppAfter completing this module, students will be able to:

- Describe SharePoint apps and compare them to SharePoint farm solutions and sandboxed solutions.
- Describe how to develop apps for SharePoint 2013 that work on-premises and in the cloud.

Module 8: Client-Side SharePoint DevelopmentThis module describes how to use JavaScript Client Object Model (CSOM), managed code CSOM and the REST API to build SharePoint Apps. Lessons

- Using the Client-Side Object Model for Managed Code
- Using the Client-Side Object Model for JavaScript
- Using the REST API with JavaScript

Lab : Using the Client-Side Object Model for Managed CodeLab : Using the REST API with JavaScriptAfter completing this module, students will be able to:

- Use the client-side object model for managed code to interact with a SharePoint deployment.
- Use the client-side object model for JavaScript to interact with a SharePoint deployment.
- Use the REST API with JavaScript or C# to interact with a SharePoint deployment.

Module 9: Developing Remote Hosted SharePoint AppsThis module examines the difference between provider hosted Apps and Remote Hosted Apps. The students will also create and deploy a Provider Hosted App. Lessons

- Overview of Remote Hosted Apps
- Configuring Remote Hosted Apps
- Developing Remote Hosted Apps

Lab : Configuring a Provider Hosted SharePoint AppLab : Developing a Provider Hosted SharePoint AppAfter completing this module, students will be able to:

- Describe how remote-hosted apps work and how to configure the permissions and cross-domain calls that they may require.
- Configure apps for hosting on Windows Azure or remote servers.
- Develop apps for hosting on Windows Azure or remote servers.

Module 10: Publishing and Distributing AppsThis module introduces the App Catalog so users to locate, purchase, and install apps easily. The students learn how to package and publish Apps to the App Catalog.Lessons

- Understanding the App Management Architecture
- Understanding App Packages
- Publishing Apps
- Installing, Updating, and Uninstalling Apps

Lab : Publishing an App to a Corporate CatalogLab : Installing, Updating, and Uninstalling AppsAfter completing this module, students will be able to:

- Explain how SharePoint manages app publishing and distribution.
- Describe the contents of an app package.
- Publish apps to a corporate catalog or the Office Marketplace.
- Install, update, and uninstall apps.

Module 11: Automating Business ProcessesThis module explains how to create workflows and workflow actions using Visio 2013, SharePoint Designer 2013 and Visual Studio 2012.Lessons

- Understanding Workflow in SharePoint 2013
- Building Workflows by using Visio 2013 and SharePoint Designer 2013
- Developing Workflows in Visual Studio 2012

Lab : Building Workflows in Visio 2013 and SharePoint Designer 2013Lab : Creating Workflow Actions in Visual Studio 2012At the end of this module, student will be able to:

- Describe the architecture and capabilities of workflow in SharePoint 2013.
- Create declarative workflows in Visio 2013 and SharePoint Designer 2013.
- Create and deploy custom workflows by using Visual Studio 2012.

Module 12: Managing TaxonomyThis module explains the importance of a good taxonomy in SharePoint and working with the components of the taxonomy. The students also see how to tie event receivers to the taxonomy.Lessons

- Managing Taxonomy in SharePoint 2013
- Working with Content Types
- Working with Advanced Features of Content Types

Lab : Working with Content TypesLab : Working with Advanced Features of Content TypesAfter completing this module, student will be able to:

- Work with taxonomy building blocks in SharePoint 2013.
- Create and configure content types declaratively and programmatically.
- Work with advanced features of content types.

Module 13: Managing Custom Components and Site Life CyclesThis module explains how you can create custom component definitions and templates, which enable you to deploy custom sites, lists and other components across a farm.Lessons

- Defining Custom Lists
- Defining Custom Sites
- Managing SharePoint Sites

Lab : Managing Custom Components and Site Life CyclesAfter completing this module, students will be able to:

- Define and provision custom lists
- Define and provision custom sites.
- Manage the SharePoint site life cycle.

Module 14: Customizing User Interface ElementsThis module explains different ways of customizing the SharePoint user interface, such as adding buttons to the ribbon or modifying the appearance of list views.Lessons

- Working with Custom Actions
- Using Client-Side User Interface Components
- Customizing the SharePoint List User Interface

Lab : Using the Edit Control Block to Launch an AppLab : Using jQuery to Customize the SharePoint List User InterfaceAfter completing this module, students will be able to:

- Use custom actions to modify the SharePoint user interface.
- Use JavaScript to work with client-side SharePoint user interface components.
- Describe how to modify the appearance and behavior of list views and forms.

Module 15: Working with Branding and NavigationThis module explains ways to customize branding, designing, publishing and navigating sites in SharePoint Server 2013. The students also learn how to create devise independent sites standard web technologies, such as HTML, CSS, and JavaScript.Lessons

- Creating and Applying Themes
- Branding and Designing Publishing Sites
- Tailoring Content to Platforms and Devices
- Configuring and Customizing Navigation

Lab : Branding and Designing Publishing SitesLab : Configuring Farm-Wide NavigationAfter completing this module, students will be able to:

- Create and apply themes to SharePoint sites.
- Create publishing site design assets such as master pages and page layouts.
- Use device channels and image renditions to adapt content for different devices.
- Configure and customize the navigation experience for publishing sites.

Dates de session

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Informations
Complémentaires

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