Dev01: Kentico CMS 7 Developer Essentials Syllabus

About This Course

[Elements of this syllabus are subject to change]

This three-day, instructor-led course teaches Web Developers the introductory fundamentals and best practices for building, deploying, and maintaining applications with Kentico CMS 7. This hands-on Developer course features Live demonstrations, questions and answers, and guided student exercises. Only Kentico certified trainers deliver Kentico CMS 7 Developer training.

Target Audience

This course is intended for Web Developers with less than a year of Kentico CMS experience, along with some programming experience using Microsoft Visual Basic or Microsoft Visual C#.

Prerequisites

- Students interested in attending this course should review the Developer Preparation Guide.
- To complete many of the Hands-on Labs in this training, students should have a local computer installed with Kentico CMS, Visual Studio, Internet Information Services (IIS), SQL Server, and other prerequisite software.

At Course Completion

After completing this course, students will be able to perform the following tasks:

- Explain the basic project structure of a Kentico CMS installation
- Use the on-site editing feature
- Learn how to validate content updates
- Navigate the CMS Desk Dashboard
- Add a new dashboard widget to a page
- Change the dashboard layout
- Add CMS Controls to the Visual Studio Toolbox
- Edit the Web.config file
- Add debug keys to the Web.config file
- Know the architectural layers for programming in Kentico CMS
- View content updates in SQL Server database tables
- Use Kentico CMS document types

- Review the built-in document types
- Create a custom document type
- Learn document type storage
- Use inherited document types
- Create custom queries
- Review Kentico CMS page templates
- Explain the Portal Engine development model, including page template scopes, page layouts, and visual inheritance
- Create a page based on an ad-hoc page template
- Create a page based on a reusable page template
- Implement a Master page
- Manage page templates
- Explain the ASPX page template development model
- Combine Portal Engine page templates and ASPX page templates
- Add Twitter integration
- Understand how CSS stylesheets are managed in Kentico CMS
- Set the stylesheet used by individual pages of a web site
- Validate page CSS styles
- Apply different CSS styles based on visitor browser and culture
- Define CSS styles for page components
- Link CSS stylesheets and component styles using macros
- Acquire an overview of the page components used in Kentico CMS
- Use and manage web parts
- Understand common web part properties
- Work with Data Viewing, Listing, and Navigation web parts
- Explain widgets and their possible applications
- Add content around web parts and widgets using containers
- Work with Layout web parts and widgets

Course Outline

Module 1: Overview of Kentico CMS

This module introduces the Kentico CMS development environment and provides an architectural overview. Before starting this module, you should have some familiarity with basic Kentico CMS concepts and processes, such as updating page content, working with page templates, running CMS Desk and Site Manager, and designing web parts, widgets, and other custom controls.

Lesson objectives

- Know the basic project structure of a Kentico CMS installation
- Use the on-site editing feature
- Learn how to validate content updates
- Explore the CMS Desk Dashboard
- Add a new dashboard widget
- Change the dashboard layout
- Add CMS Controls to the Visual Studio Toolbox
- Edit the Web.config file
- Add debug keys to the Web.config file
- Know the architectural layers for programming in Kentico CMS
- View content updates in SQL Server database tables

Lessons

- Overview of Kentico CMS
  - On-site editing
  - Hands-on Lab M1-1: On-site editing
  - Validate tab
  - Hands-on Lab M1-1: Using the Validate tab
  - Dashboard management
  - Hands-on Lab M1-2: Adding a new widget
  - Dashboard layouts
  - Hands-on Lab M1-3: Creating a new Dashboard widget
- Kentico CMS project structure
  - Hands-on Lab M1-4: Adding CMS controls to the Visual Studio Toolbox
  - Web.config
  - Hands-on Lab M1-5: Adding debug keys to the Web.config file
- Architecture overview
  - User interface
  - Hands-on Lab M1-6: User interface
  - Application layer
  - Hands-on Lab M1-7: Adding a document structure
  - Data layer
  - Hands-on Lab M1-8: Using the application layer

Module 2: Kentico CMS Document types

This module explains how to create and use document types.

Lesson objectives

- Use Kentico CMS document types
- Review the built-in document types
- Create a custom document type
- Learn document type storage
- Use inherited document types
- Create custom queries

Lessons

- Kentico CMS document types
  - Hands-on Lab M2-1: Alternative Forms
- Using built-in document types
  - Hands-on Lab M2-2: Using built-in document types
- Extending document types
  - Hands-on Lab M2-3: Extending document types
- Creating custom document types
  - Hands-on Lab M2-4: Creating a custom document type
- Child types
  - Hands-on Lab M2-6: Document type icons
- Document type inheritance
  - Hands-on Lab M2-7: Document type inheritance
- Creating custom queries
  - Hands-on Lab: M2-8: Creating custom queries

Module 3: Page Templates

This module explains the usage of page templates and their importance in Kentico CMS.

Lesson objectives

- Review Kentico CMS page templates
- Explain the Portal Engine development model, including page template scopes, page layouts, and visual inheritance
- Create a page based on an ad-hoc page template
- Create a page based on a reusable page template
- Implement a Master page
- Manage page templates
- Explain the ASPX page template development model
- Combine Portal Engine page templates and ASPX page templates
- Add Twitter integration

Lessons

- Page template development models
    - Hands-on Lab M3-1: Using page template development models
    - Modifying a Portal Engine page template
    - Hands-on Lab M3-2: Modifying a Portal Engine page template
- Using Master pages
    - Hands-on Lab M3-3: Editing a Master page
- Portal Engine development model
    - Hands-on Lab M3-4: Creating a page using the Portal Engine development model
    - Ad-Hoc page templates
    - Hands-on Lab M3-5: Re-using an Ad-Hoc page template
    - Page template scopes
    - Hands-on Lab M3-6: Page template scopes
    - Shared page layouts
    - Hands-on Lab M3-7: Using shared page layout
    - Visual inheritance
        - Using the **Inherit content** property of the page template
        - Using the **Hide on subpages** web part property
        - Using the **Show for document types** web part property
    - Hands-on Lab M3-8: Visual inheritance
        - Using the **Inherit content** property of the page template
        - Using the **Hide on subpages** web part property
        - Using the **Show for document types** web part property
    - Adding custom code to a Portal Engine page
    - Hands-on Lab M3-9: Adding custom code to a Portal Engine template
- ASPX development model
    - Hands-on Lab M3-10: Creating an ASPX page template
    - ASPX Master pages
    - Hands-on Lab M3-11: Adding custom code to an ASPX template
- Adding Portal Engine functionality to an ASPX template
    - Hands-on Lab M3-12: Adding Portal Engine functionality to an ASPX template
- Adding Twitter integration
    - Hands-on Lab M3-13: Adding Twitter integration

Module 4: Creating and Managing CSS Styles

CSS styles allow you to modify the appearance and design of your web site. In this module, you learn how Kentico CMS integrates and simplifies the styling of your web site using standard CSS styles.

Lesson objectives

- Understand how CSS stylesheets are managed in Kentico CMS

- See how to set the stylesheet used by individual pages of your web site
- Learn how to validate page CSS styles
- Learn how to use different CSS styles based on visitor browser and culture
- Understand how to define CSS styles for page components
- Learn how to link CSS stylesheets and component styles using macros

Lessons
- Selecting CSS stylesheets
  - Hands-on Lab M4-1: Selecting stylesheets used by pages
- Editing CSS sylesheets
  - Hands-on Lab M4-2: Editing stylesheet code
- Validating CSS styles on a page
  - Hands-on Lab M4-3: Validating page CSS styles
- Using browser and culture specific CSS styles
  - Hands-on Lab M4-4: Using browser-specific styles
- Specifying CSS styles for page components
  - Loading page component CSS styles
  - Hands-on Lab M4-5: Defining CSS styles for a web part
- Combining CSS stylesheets
  - Hands-on Lab M4-6: Linking CSS stylesheet text

Module 5: Content presentation

This module shows you how to add and manage web content through page components (particularly, web parts and widgets).

Lesson objectives
- Acquire an overview of the page components used in Kentico CMS
- Learn how to use and manage web parts
- Understand common web part properties
- Learn to work with Data Viewing, Listing, and Navigation web parts
- Learn about widgets and their possible applications
- Learn how to add content around web parts and widgets using containers
- Work with Layout web parts and widgets

Lessons
- Content presentation
  - Working with web parts
    - Hands-on Lab M5-1: Working with web parts
    - Web parts for data retrieval and display rendering
    - Web parts for site navigation
    - Hands-on Lab M5-2: Displaying data through web parts
  - Widgets

- - - Editor widget zones
    - Hands-on Lab M5-4: User widget zones
    - Dashboards
    - Hands-on Lab M5-5: Dashboards
    - Inline widgets
    - Hands-on Lab M5-6: Creating a widget
  - Containers
    - Hands-on Lab M5-7: Creating a web part container
  - Layout web parts
    - Hands-on Lab M5-8: Using layout web parts