



MCS D: Web Applications(ASP Track) (MVC)

Solutions Developer

1. Course 20480B: Exam Code: 070-480

Programming in HTML5 with JavaScript and CSS3

Course Outline Module 1: Overview of HTML and CSS

- Overview of HTML
- Overview of CSS
- Creating a Web Application by Using Visual Studio 2012

Module 2: Creating and Styling HTML5 Pages

- Creating an HTML5 Page
- Styling an HTML5 Page
- **Module 3: Introduction to JavaScript**
- Introduction to jQuery

- Overview of JavaScript Syntax
- Programming the HTML DOM with JavaScript

- **Module 4: Creating Forms to Collect Data and Validate User Input**

- Overview of Forms and Input Types
- Validating User Input by Using JavaScript
- Validating User Input by Using HTML5

Attributes

- **Module 5: Communicating with a Remote Data Source**

- Sending and Receiving Data by Using XMLHttpRequest
- Sending and Receiving Data by Using jQuery AJAX operations
- Simplify code that serializes, deserializes, sends, and receives data by using the jQuery ajax method

- **Module 6: Styling HTML5 by Using CSS3**

- Styling Text
- CSS3 Selectors
- Styling Block Elements
- Enhancing Graphical Effects by Using CSS3

- **Module 7: Creating Objects and Methods by Using JavaScript**

- Writing Well-Structured JavaScript
- Extending Objects
- Creating Custom Objects

- **Module 8: Creating Interactive Pages using HTML5 APIs**

- Interacting with Files
- Reacting to Browser Location and Context
- Incorporating Multimedia
- Debugging and Profiling a Web Application

- **Module 9: Adding Offline Support to Web Applications**

- Reading and Writing Data Locally



- Adding Offline Support by Using the Application Cache
- **Module 10: Implementing an Adaptive User Interface**
- Supporting Multiple Form Factors
- Creating an Adaptive User Interface
- **Module 11: Creating Advanced Graphics**
- Creating Interactive Graphics by Using Scalable Vector Graphics
- Programmatically Drawing Graphics by Using a Canvas
- **Module 12: Animating the User Interface**
- Applying CSS Transitions
- Applying CSS Key-frame Animations
- Transforming Elements
- **Module 13: Implementing Real-Time Communications by Using Web Sockets**
- Introduction to Web Sockets
- Sending and Receiving Data by Using Web Sockets
- **Module 14: Creating a Web Worker Process**
- Introduction to Web Workers
- Performing Asynchronous Processing by Using a Web Worker

• **2 * Course 20486B:
070-486**

Exam Code:

• **Developing ASP.NET MVC 4 Web Applications**

- **Module 1: Exploring ASP.NET MVC4**
- Overview of Microsoft Web Technologies
- Introduction to ASP.NET MVC 4
- Overview of ASP.NET 4.5
- **Module 2: Designing ASP.NET MVC 4 Web Applications**
- Planning in the Project Design Phase
- Designing Models, Controllers, and Views
- **Module 3: Developing ASP.NET MVC 4 Models**
- Creating MVC Models
- Working with Data
- **Module 4: Developing ASP.NET MVC 4 Controllers**
- Writing Controllers and Actions
- Writing Action Filters
- **Module 5: Developing ASP.NET MVC 4 Views**
- Creating Views with Razor Syntax
- Reusing Code in Views
- Using HTML Helpers
- **Module 6: Testing and Debugging ASP.NET MVC 4 Web Applications**
- Unit Testing MVC Components
- Implementing an Exception Handling Strategy
- **Module 7: Structuring ASP.NET MVC 4 Web Applications**



- Analyzing Information Architecture
- Configuring Routes
- **Module 8: Applying Styles to ASP.NET MVC 4 Web Applications**
 - Using Template Views
 - Applying CSS to an MVC Application
 - Creating an Adaptive User Interface
- **Module 9: Building Responsive Pages in ASP.NET MVC 4 Web Applications**
 - Using AJAX and Partial Page Updates
 - Implementing a Caching Strategy
- **Module 10: Using JavaScript and jQuery for Responsive MVC 4 Web Applications**
 - Rendering and Executing JavaScript Code
 - Using jQuery and jQueryUI
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- **Module 11: Controlling Access to ASP.NET MVC 4 Web Applications**
 - Implementing Authentication and Authorization
 - Assigning Roles and Membership
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- **Module 12: Building a Resilient ASP.NET MVC 4 Web Application**
 - Developing Secure Sites
 - State Management
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- **Module 13: Using Windows Azure Web Services in ASP.NET MVC 4 Web Applications**
 - Introducing Windows Azure
 - Designing and Writing Windows Azure Services
 - Consuming Windows Azure Services in a Web Application
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- **Module 14: Implementing Web APIs in ASP.NET MVC 4 Web Applications**
 - Developing a Web API
 - Calling a Web API from Mobile and Web Applications
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- **Module 15: Handling Requests in ASP.NET MVC 4 Web Applications**
 - Using HTTP Modules and HTTP Handlers
 - Using Web Sockets
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- **Module 16: Deploying ASP.NET MVC 4 Web Applications**
 - Deploying a Web Application
 - Deploying an MVC 4 Application
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3* Course 20487A:

Exam Code: **070-487**

Developing Windows Azure and Web Services

Module 1: Overview of service and cloud technologies

- Key Components of Distributed Applications
- Data and Data Access Technologies
- Service Technologies
- Cloud Computing
- Exploring Blue Yonder Airlines' Travel Companion Application

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Module 2: Querying and manipulating data using Entity Framework

- ADO.NET overview
- Creating an entity data model
- Querying data
- Manipulating data

Module 3: Creating and consuming ASP.NET Web API services

- What are HTTP services?
- Creating an ASP.NET Web API service
- Handling HTTP requests and responses
- Hosting and consuming ASP.NET Web API services

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Module 4: Extending and securing ASP.NET Web API services

- The ASP.NET Web API request pipeline
- The ASP.NET Web API response pipeline
- Creating OData services
- Implementing Security in ASP.NET Web API services
- Injecting dependencies into controllers

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Module 5: Creating WCF services

- Advantages of creating services with WCF
- Creating and implementing a contract
- Configuring and hosting WCF services
- Consuming WCF services

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Module 6: Designing and extending WCF services contracts

- Applying design principles to service contracts
- Handling distributed transactions
- WCF pipeline architecture
- Extending the WCF pipeline

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Module 7: Implementing Security in WCF services

- Transport security
- Message security
- Configuring service authentication and authorization

Module 8: Windows Azure Service Bus

- Windows Azure Service Bus Relays
- Windows Azure Service Bus Queues
- Windows Azure Service Bus Topics

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Module 9: Hosting services

- Hosting services on-premises
- Hosting services in Windows Azure

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Module 10: Deploying Services

- Web Deployment with Visual Studio
- Creating and deploying Web Application packages
- Command-line tools for web deployment packages
- Deploying to Windows Azure



- Continuous delivery with TFS and GIT
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- **Module 11: Windows Azure Storage**
- Introduction to Windows Azure storage
- Windows Azure Blob Storage
- Windows Azure Table Storage
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- **Module 12: Monitoring and diagnostics**
- Performing diagnostics using tracing
- Configuring service diagnostics
- Monitoring IIS
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- **Module 13: Identity management and access control**
- Claim-based identity concepts
- Access Control Service
- Configuring services to use federated identities
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- **Module 14: Scaling Services**
- Introduction to scalability
- Load balancing
- Scaling on-premises services with distributed cache
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- Best practices for production deployment
- Windows Azure Queue Storage
- Restricting access to Windows Azure Storage
- Monitoring services using Windows Azure diagnostics
- Debugging using IntelliTrace
- Collecting Windows Azure metrics
- Handling federated identities in the client side
- Windows Azure caching
- Caveats of scaling services
- Scaling globally

Facilities :

- ❖ Modern Lab with Internet Facility.
- ❖ Students can do Lab till they pass Online Examination without any extra cost.

Batch Timings :

- ❖ 7 - 9 am/9 - 11am/11 - 1pm/ 2 - 4pm /4- 6pm / 6 - 8pm / Sat & Sun Only / Sunday Only.

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