

Academy of Information Technology (AIT)

Certificate Course

in

Dot Net Technologies

Windows Application C#,ASP,MVC Core

Developing GUI Application Using WINFORMS

- Basic Controls
- Panel & Layouts
- Drawing and GDI Devices
- MenuStrip, ToolStrip and ContextMenuStrip
- Model and Modeless Dialog boxes
- Multiple Document Interface(MDI)
- Form Inheritance
- Building Login Form
- Working with Resource Files and Setting
- Notify Icon Controls
- Using Components like Timer, FileSystemWatcher, Process, BackgroundWorker
- Drag and Drop
- Working with Advanced Controls like TreeView and ListView

Managing Data using DataSet

- ☐ Introduction DataSet and its Object Model
- ☐ Filling DataSet using DataAdapter
- ☐ Binding DataSet to DataGridView
- ☐ Updating changes to database using DataAdapter
- ☐ Using SqlCommandBuilder
- ☐ Managing DataTable Programmatically
- ☐ DataAdapter events
- ☐ Working with DataViews
- ☐ Constraints in DataTable
- ☐ Using DataRelations object
- ☐ Creating DataSet/DataTable dynamically

Database Programming Using ADO.NET

- ☐ Prerequisite - Knowledge of SQL Queries
- ☐ Introduction and Evolution of ADO.NET
- ☐ Understanding the Role of Managed Provider and ADO.NET Objects
- ☐ installing Required Software - Sql Server and Management studio

- ☐ Connecting to Database and Connection Pooling
- ☐ Performing Insert, Update and Delete Operations
- ☐ Fetching Data from database - Executing Select Statements
- ☐ How to implement Login facility with database
- ☐ Use of Multiple Active Result Sets
- ☐ Parameterized Prepared Statements
- ☐ Inserting Image into Database table
- ☐ Executing Stored Procedure
- ☐ Using Transaction

ASP.NET Syllabus

Web Programming Introduction

- Understanding role of Web Server and Web Browser.
- Brief about HTTP Protocol.
- HTTP Request structure.
- Form Tag and comparison between Get and Post methods.
- HTTP Response Structure

HTML and JavaScript

- Understanding HTML Form Tag and elements within it.
- Javascript using Sample Programs.

Traditional ASP Basics

- Introduction to ASP.
- How ASP Works.
- ASP Objects.
- Installing IIS on Windows 7 & Windows 8.
- Sample Programs.
- Importance's of Form tag and how it works.

ASP.NET Introduction & Controls

- ASP.NET Introduction
- First ASP.NET Application.
- Auto Postback Property.
- Event Handler Parameters.
- Dynamically initializing Controls
- IsPostBack property of Page class
- ListControls
- Comparison between HtmlControls and WebControls
- Control Properties and Methods
- FileUpload Control

ASP.NET Architecture

- What is AppDomain?
- Life Cycle of ASP.NET Page
- How Control Manages its State
- What is EnableViewState
- How Control raises events
- Event handling in Web Forms
- Writing Custom Classes in WebApplication

CSS & Themes

- Work with CSS
- Use Themes to Customize a Site
- Name Skins within a Theme
- Do server-side Styles using Themes

- Add contents of a Theme and Skin
- Apply themes and Profiles .

Redirecting User to Another Page

- Redirecting Options

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- Response.Redirect
- Server.Transfer
- Cross Page Postback
- Determine how the pages was invoked
- Passing values between pages

Master Pages

- Introduction to MasterPage
- ContentPlaceHolder and Content tags
- Accessing controls of MasterPage in ContentPage
- URL's in MasterPages
- UniqueID and ClientID

Working with User Control

- Overview of User Controls
- Creating a User Control
- Adding Properties to User Control
- Adding Events to User Control
- Using User Control in Web Form
- Rendering Clients Scripts Using Page.ClientScript methods

Validation Controls

- Base Validator
- Required Field Validator
- Compare Validator
- Range Validator
- Regular Expression Validator
- Custom Validator
- Causes Validation Property
- Grouping - Validation Group Property
- Page.Validators and Page.IsValid

ASP.NET State Management

- Static Members
- View State
- Hidden Field in Form
- Query String
- HttpContext
- Cookies-HttpCookie
- Sessions-HttpSessionState
- Application-HttpApplicationState
- Summary of All Features

WebConfiguration File and Global.asax

- Introduction to Configuration files
- Page setting in web.config
- Custom Errors
- URL Re-Writing

- Tracing
- Using ConfigSource Attribute
- Using Location Section
- HttpApplication class-Global.asax

Data Bound Controls

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- Databinding traditional way
- SqlDataSource
- GridView
- DetailsView
- FormView
- DataList
- Repeater
- ListView
- DataPager

Globalization and Localization

- Definitions
- Creating Resource files for different cultures
- Designing the WebForm & linking controls to keys in Resource files
- Alternatives to initialize culture settings of the page.

AJAX.NET

- What is AJAX
- What is AJAX.NET
- Script Manager
- Update Panel
- Update Progress
- Timer
- AJAX Control Toolkit

Routing

- What is Routing?
- Mapping Route to Physical file
- Reading Route Parameters
- Route Expression
- Generate URL using Markup

Understanding & Publishing Web Application

- Introduction to ASP.NET Web Application
- Advantages of IIS Applications
- Creating web application in IIS
- Converting File System application to IIS Application
- Using Virtual Directory
- Publishing ASP.NET Website
- Culture specific formatting

ASP.NET MVC Syllabus

Introduction

- ASP.NET MVC-Introduction
- First MVC Application
- First MVC Application

Exploring Controllers

- Controller Viewdata & Tempdata
- Controller Action Methods
- Controller Action Method Parameter
- Controller Action Filters
- Controller Action Custom Filters

Exploring Razor Views

- View Razor Syntax
- View Layouts
- View Partialviews
- View Tightly Coupled Model
- Digging into HTMLHelper Methods
- Html Helpers Part-I
- Html Helpers Part-II
- Html Helper Model Binding
- Html Helper Display and Editors Methods
- Html Helper Viewdata Binding
- Html Helper Custom Templates
- Html Helper Reusing Helpers

Understanding Model Binders

- Default Model Binder
- Custom Model Binder
- Validation and Annotations

Model Validation

- Unobtrusive Client Validations
- Metadata Validation
- Using Entity Framework
- MVC and EF Crud Operations
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- MVC and EF Crud Operation Using BO Class
- MVC and EF Crud Operations Using Generic BO Class
- Authentication and Authorization

Windows Authentication

- Forms Authentication
- Role Based Authentication
- Anti Forgery Token

URL Routing

Working with Areas

- JQuery and Ajax
- Ajax Helper Methods Controller

Jquery UI

- JQuery Template

Bundling and Minification

- Bundling and Minification

Mobile Compatibility

- Mobile Compatibility
- Web API 66 mins
- Web API First Example
- Performing Crud Using Web API
- Sample Project With Complete Source Code ---

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