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Microsoft .NET Framework Certification Training

Course Curriculum : Your 10 module Learning Plan

https://www.edureka.co/microsoft-dotnet-framework-self-paced

About Edureka

Edureka is a leading e-learning platform providing live instructor-led interactive online training. We cater to professionals and students across the globe in categories like Big Data & Hadoop, Business Analytics, NoSQL Databases, Java & Mobile Technologies, System Engineering, Project Management and Programming. We have an easy and affordable learning solution that is accessible to millions of learners. With our students spread across countries like the US, India, UK, Canada, Singapore, Australia, Middle East, Brazil and many others, we have built a community of over 1 million learners across the globe.

About Course

Edureka's Microsoft .NET Framework course is designed with the help of top industry experts, making you proficient in working with .NET for Web and Desktop, understanding .NET Architecture, building dynamic websites, and designing interactive Desktop/windows applications with hands-on demonstrations. Enroll now to become a Certified .NET Developer with Edureka.

Microsoft .NET Framework Certification Training Projects

What are the system requirements for this course?

A System with an Intel i3 Processor or above, minimum 4 GB RAM (8 GB recommended) and an Operating System either of 32bit or 64bit.

How will I execute the practicals?

Practicals are executed on Visual Studio IDE. Download and setup guides are provided to the learners on the LMS.

Which projects and case-studies will be a part of this Edureka's .NET Framework Certification Training Course?

The Microsoft .NET Certification Course project will test your ability to work with services. Following is the problem statement for the same:

Problem Statement:

Build a Library Management Web application using .NET as per the below requirements

Objective:

Create a Library Management website using ASP.NET, and MSSQL Server database, the website should be created using C#, HTML (CSS can be used to design the user interface, you can also use bootstrap to make it easier, in case you have knowledge about the same) with proper header, footer and master-page the resulting website should contain following functional elements:

- **Login Page:** Should contain Email and Password fields, where Librarian or students can login into website with their respective roles.
- **Admin Page:** Where you can login as admin and perform Add, Read, update, delete operations on the books, students and all the attributes.
- **Student Page:** Where you can login as student and check one's account, report, penalty report, book report.

Microsoft .NET Framework Certification Training Curriculum

Introduction to .NET Framework

Goal:The aim of this module is to introduce basic concepts of .NET. Make the learners equipped in understanding the .NET architecture for .NET applications with proper features and tools.

Objectives:

At the end of this module, you should be able to:

- Know about .NET-5.0
- Get complete idea on .NET Architecture
- Learn about Common Language Runtime
- Work in Integrated Development Environment
- Know about Solution Explorer
- Figure out NuGet Package Manager

Topics:

- Introduction to .NET 5.0
- .NET -5.0
- Architecture of .NET
- Common Language Runtime
- Integrated Development Environment
- Solution Explorer & NuGet Package Manager

Hands on:

- Exploring Visual studio IDE and basic C# Console Applications

Skills Covered:

- C# programming language

Introduction to C# and Oops using C#.NET

Goal:Learn the basic concepts of C# and OOPs concepts by working on console applications.

Objectives:

At the end of this module, you should be able to:

- Learn C# programming language for web development
- Understand about Syntax, Namespace, Datatypes, Keywords, Operators in C#
- Learn about Conditional and Iterative statements in C#
- Learn OOPs & OOPs features in C#

Topics:

- C# language Basics
- Arrays
- Conditional Statements
- Loops/Iterative statements
- Methods
- Oops in C#
- Features of Oops

Hands on:

- Developing Console Applications Which imitates Phone book app in your smartphone using C# and many more.

Skills Covered:

- C# programming language and Object-Oriented programming concepts.

Windows Forms using C#.Net

Goal:The Goal is to create windows forms using different controls of Visual Studio IDE.

Objectives:

At the end of this module, you should be able to:

- Learn about handling exceptions
- Get complete idea on Delegates, Properties & Indexers
- Learn about IDE for windows forms
- Work with GUI Controls

Topics:

- Handling Exceptions
- Delegates, Properties & Indexers
- Visual Studio-IDE for Windows Forms
- GUI Controls & Event Handling

Hands on:

- Exceptional Handling.
- Different windows forms using different controls of toolbox

Skills Covered:

- C# programming language

Collections and Assemblies

Goal:To build different windows applications using collections

Objectives:

At the end of this module, you should be able to:

- Learn about Collections
- Get complete idea on Index based Collections
- Work on Key valued-paired Collections
- Know about Prioritized Collections
- Understand Assemblies
- Learn how to consume Assembly

Topics:

- Collections-Index based
- Collections, Interfaces &Generics
- Assembly & Types of Assemblies
- Install Assembly in GAC
- Consumer class Library

Hands on:

- Build and Deploy Collections in console & windows forms.

Skills Covered:

- C# programming language
- Classes essential for Collections

ADO.NET- Data Access from SQL

Goal:Develop C# windows applications with database connectivity.

Objectives:

At the end of this module, you should be able to:

- Learn about architecture of ADO.NET API with its built-in classes
- Understand how to connect to database from C# Applications
- Know about connection oriented and disconnection model
- Perform CRUD operations on SQL Server database from C# applications
- Work with SQL Server stored procedures

Topics:

- ADO.NET Introduction
- Models to connect to database
- Connecting to SQL server database using ADO.NET

Hands on:

- Build Login and Signup Windows application with MSSQL database connectivity.
- Performing Create, Read, Update, Delete (CRUD) operations on SQL Server database from Windows app.

Skills Covered:

- ADO.NET library
- Classes essential for database connectivity

ASP.NET

Goal:To Build Web forms applications using ASP.NET

Objectives:

At the end of this module, you should be able to:

- Understand the concepts of Web technology
- Learn how Web applications are created

- Know the functioning of websites
- Know about server-side and client-side scripting
- Figure out how ASP.NET is different from .NET
- Learn to create dynamic websites

Topics:

- Web and Internet and Web applications
- Website, Web pages and Webpage elements
- ASP.NET

Hands on:

- Taking steps towards web development by building Login and Registration web Applications and many more.

Skills Covered:

- Web technologies, Websites, and elements of Website
- ASP.NET for Web Development

Web Server Controls

Goal:To Build a web form using different GUI controls & using Database connections

Objectives:

At the end of this module, you should be able to:

- Learn about HTML & Web server controls
- Learn how web server controls are placed in web forms
- Know about ASP.NET Data Bound Controls

Topics:

- HTML & Web Server Control
- Common Web Server Controls
- ASP.NET Data Bound Controls

Hands on:

- HTML Controls
- ASP.NET for Web Development
- ASP.NET data bound controls
- Data Bound Controls using Data base connectivity

Skills Covered:

- HTML
- Data Bound Controls

LINQ, Web Architecture

Goal:To Build C# applications using LINQ

Objectives:

At the end of this module, you should be able to:

- Understand LINQ in C#
- Work with LINQ to collections
- Know working of LINQ with XML files
- Work with LINQ to SQL
- Know about MVC
- Learn Entity Framework for LINQ
- Understand 3-tier application design models
- Create 3-tier Websites

- Start working on MVC web projects

Topics:

- Getting started with LINQ
- MVC and Entity Framework
- 3-tier web architecture

Hands on:

- Build and deploy MVC based and 3-tier website applications and working with LINQ queries.

Skills Covered:

- LINQ
- MVC
- Entity Framework
- 3-tier web architecture

State Management, Ajax

Goal:To Build web applications using State Management techniques & Ajax

Objectives:

At the end of this module, you should be able to:

- Learn about State Management Techniques
- Know various client side & server-side techniques
- Get complete idea on Ajax

Topics:

- Introduction to State Management techniques

- View State, Query String &Cookie
- Cache & its types
- Application & Session
- Ajax introduction & Ajax Extensions

Hands on:

- Build and Deploy Websites using State management, Ajax programs.

Skills Covered:

- HTML
- XML
- Ajax Extension controls

Security and Web services

Goal:To Build a web service and consume it in local project and implement security aspects in ASP.NET projects.

Objectives:

At the end of this module, you should be able to:

- Implement Web Security in ASP.NET projects
- Understand Web Services
- Understand XML, WSDL, UDDI
- Create web services, [WebService] [WebMethod] attributes
- Adding and Consuming web services

Topics:

- Web Services

- Web Security

Hands on:

- Implementing security in web applications.
- Build and Consume Custom made webservices

Skills Covered:

- Web security
- Web services