



A Unit of Ascent NextGen Technologies

.NET Full Stack

Master's Program

.NET Full Stack

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Program Overview

.NET Full Stack Development

Build a strong career in the fast-growing field of **.NET Full Stack Development** with this industry-focused training program. The program is designed to help students and professionals develop practical skills in designing, developing and deploying modern web applications using Microsoft .NET technologies.

The course covers essential tools and technologies including **C#, .NET, ASP.NET, ASP.NET MVC, Web API, ADO.NET, SQL Server, TypeScript and Angular**, enabling learners to build scalable and dynamic full stack applications.

Through **real-time projects, case studies and hands-on training**, students gain practical experience working with real-world scenarios. The program focuses on developing strong problem-solving skills, backend and frontend integration, and application deployment techniques used in modern software development.

By the end of the program, learners will be able to **build complete full stack applications**, develop **RESTful services**, **manage databases**, **create responsive user interfaces**, and **deploy applications** in real-world environments.

Key Features

.NET Full Stack Development



Instructor-Led Training

Comprehensive sessions from C# basics to complete full stack web applications, with practical examples.



Hands-On Learning

Build interactive full stack web applications and work on real-world projects to gain practical experience.



Real-Time Projects

Develop full stack and REST API-based web applications and gain experience building scalable web solutions.



Certification Program

Receive the .NET Full Stack Master's Program certificate from Ascent Software Training Institute after successful completion.



Comprehensive Curriculum

C# and .NET, SQL Server and ADO.NET, ASP.NET MVC, Web API, TypeScript and Angular.



Experienced Instructors

Learn from industry experts and senior full stack developers, with mentorship and guidance.



Flexible Learning Options

Choose online, in-person or hybrid classes. Classroom training at BTM 1st Stage, Bangalore.



Career Support & Placement Assistance

Resume building, interview preparation, job search assistance and job placement programs.

About Ascent Software Training Institute

Ascent Software Training Institute is a leading training institute that provides industry-focused IT courses designed to help students and professionals build successful careers in technology.

Our training programs focus on practical learning, real-time projects and industry-relevant skills. With experienced trainers and a structured curriculum, we help learners gain the knowledge and confidence required to succeed in today's competitive IT industry.

Career Opportunities

in .NET Full Stack Development



High-Demand Career Paths

- .NET Full Stack Developer
- .NET / C# Developer
- ASP.NET Developer
- Frontend Developer (Angular)
- Web Application Developer
- Software Engineer



Career Growth & Advancement

Start as a junior developer and grow into roles like:

- Senior .NET Developer
- Solution Architect
- Tech Lead
- Software Development Manager



Entrepreneurial Opportunities

- Build web-based products
- Launch SaaS platforms
- Start your own tech company



Opportunities Across Industries

- Finance
- Healthcare & biotech
- E-commerce & retail
- Marketing & advertising
- Technology & software
- Government & public sector



Freelancing & Remote Work

Many companies offer remote roles and freelancing opportunities, allowing flexibility and global exposure.

Why choose a career in .NET full stack development?

- Companies rely on web applications for business operations and scalability.
- With hands-on training and real-time projects, you can build a rewarding career in this field.

Career progression depends on each person's skills, experience and the roles available.

Learning Path

.NET Full Stack Development

1

.NET & C# Fundamentals

.NET Framework, Visual Studio, C# syntax and types

2

Object-Oriented C#

Classes, interfaces, collections, generics

3

Advanced C#

Delegates, events, exceptions, threading, files

4

Databases

SQL Server queries, procedures and ADO.NET

5

ASP.NET & MVC

Web applications, routing, views, validation

6

Web API

RESTful services and CRUD

7

Angular Frontend

TypeScript, modules, components, data binding

8

Real-Time Projects & Placement

Capstone projects, resume and interview preparation

Program Outcomes

At the end of this .NET Full Stack Developer program, you will be able to:

- ✓ **Build C# applications** using object-oriented programming, collections and generics.
- ✓ **Design and query SQL Server databases** and access them with ADO.NET.
- ✓ **Develop web applications** with ASP.NET and ASP.NET MVC.
- ✓ **Build RESTful APIs** with ASP.NET Web API.
- ✓ **Create single-page frontends** with TypeScript and Angular.
- ✓ **Integrate frontend and backend** into complete full stack applications.
- ✓ **Work on real-time projects** such as student, e-commerce, hospital and chat applications.
- ✓ **Build a professional portfolio** of full stack applications.
- ✓ **Prepare for technical interviews** and job opportunities in .NET development.



Who Should Attend

This training program is designed for individuals who want to build or advance their skills in **software and technology**. The following roles and backgrounds are ideal for this program:

- ✓ **Fresh graduates** looking to start a career in **software and technology**.
- ✓ **Professionals** from non-technical backgrounds who want to **transition** into software and tech-related roles.
- ✓ **Junior to mid-level professionals** aiming to **upskill** in the latest **software tools** and **programming** languages.
- ✓ **IT professionals** looking to specialise in .NET full stack development and modern development practices.
- ✓ **Working professionals** who want to enhance their productivity and technical skills.
- ✓ Individuals passionate about **technology**, problem-solving and innovation.

No prior programming experience is required: the course starts with .NET and C# fundamentals.

Program Curriculum

C#, .NET, SQL Server, ASP.NET MVC, Web API and Angular. The course teaches .NET in a practical, hands-on way using industry-standard methods, tools and technologies, and builds algorithmic thinking and real-time problem-solving skills so you can write code that works.

MODULE 01 .NET Framework & Visual Studio

How .NET applications are built, compiled and run, and how to work productively in Visual Studio.

- What the .NET Framework is; architecture and execution model
- Common Language Runtime (CLR) and garbage collection
- .NET class library, assemblies and MSIL
- Versions of .NET and Visual Studio
- Visual Studio overview, settings and creating a project
- Code editor, code snippets and IntelliSense
- Debugging: breakpoints, stepping through code
- Watch, Autos and Immediate windows

MODULE 02 C# Language Foundations

The building blocks of C#: syntax, types, operators, strings, flow control and arrays.

- Compilers and interpreters; the C# compiler (csc.exe)
- Passing arguments to Main()
- Keywords, variables, scope and comments
- Value types, reference types and enumerations
- Implicit typing, type conversion, boxing and unboxing
- Constants and readonly
- Arithmetic, logical, relational, bit-shift and assignment operators
- System.String, escape characters, formatting and StringBuilder
- if, if-else, nested if and switch; break and continue
- for, nested for, foreach, while and do-while loops
- Single, multidimensional and jagged arrays; parameter arrays; copying arrays

PROGRAM CURRICULUM

MODULE 03 **Object-Oriented Programming in C#**

Model real-world problems with classes, structs and interfaces.

- Defining classes, objects and class members
- Methods, arguments, parameters; ref and out
- Structs as value types
- Access modifiers and properties
- is and as operators
- Instance and static constructors; destructors
- Abstraction, encapsulation, polymorphism and inheritance
- Defining, implementing and inheriting interfaces
- Static, partial, abstract and sealed classes
- Calling base class constructors; virtual methods

MODULE 04 **Collections, Generics, Delegates & Events**

Store data flexibly and write reusable, event-driven code.

- ArrayList, stacks, queues and dictionaries
- Indexers and iterators; IEnumerable and IEnumerator
- IComparer and IComparable
- Generic classes, interfaces, methods and delegates
- Constraints and the default keyword
- Creating delegates; multicast delegates
- Callbacks and asynchronous callbacks
- Handling and implementing events; events vs delegates

PROGRAM CURRICULUM

MODULE 05 **Exceptions, Threading, Files & Reflection**

Write robust, concurrent code and work with files and metadata.

- try-catch, multiple exceptions, throw and finally
- Custom exceptions
- Processes and application domains
- Starting threads and passing parameters
- Thread synchronisation: Interlocked, lock and Monitor
- Parallelisation; synchronous and asynchronous calls
- Working with files and directories; File and FileInfo
- Streams: FileStream, BufferedStream, MemoryStream
- Reflection, late binding and attributes
- Dynamically loading assemblies

MODULE 06 **SQL Server**

Design databases and query data with SQL Server.

- RDBMS concepts and SQL Server data types
- DDL, DML, DCL, TCL and DQL commands
- Basic queries, subqueries and partitions
- Inner, outer, self and cross joins
- Constraints and their types
- Unions, views and stored procedures
- Triggers

PROGRAM CURRICULUM

MODULE 07 **ADO.NET**

Connect .NET applications to SQL Server and work with data.

- ADO vs ADO.NET; ADO.NET architecture
- Connected and disconnected architecture
- Choosing a data provider; defining and managing connections
- Handling connection exceptions; connection pooling
- Command objects and executing commands
- DataReader and transactions
- DataAdapter and DataSet
- Modifying a DataTable and saving changes

MODULE 08 **ASP.NET Web Applications**

Build server-side web applications with ASP.NET.

- Evolution of web development; HTML and HTML forms
- Server-side and client-side programming
- ASP.NET versions; creating websites and web applications
- Solution Explorer and web forms
- IIS web server
- Validator controls: client-side and server-side validation
- Validating with regular expressions; validation groups

PROGRAM CURRICULUM

MODULE 09 **ASP.NET MVC & MVC Core**

Build structured web applications with the Model-View-Controller pattern.

MVC basics	Web Forms vs MVC, MVC versions, MVC architecture, controllers, action methods, views and models
Controllers	Creating controllers and actions, action results, getting started with MVC Core
Routing	Request and response routing, convention-based and attribute-based routing, view engines
HTML helpers	DisplayFor, BeginForm, LabelFor, EditorFor, ValidationMessageFor, DropDownListFor, CheckBoxFor and custom helpers
Layouts & partial views	Layout views with sections, RenderSection, _ViewStart.cshtml, partial views and their types

MODULE 10 **Scaffolding, Filters, State Management & Validation**

Speed up development and manage data between requests.

- Scaffold templates: controllers and views
- Strongly typed views; Index, Details, Create, Edit, Delete
- Action filters: HttpGet, HttpPost, ValidateAntiForgeryToken, OutputCache, HandleError, NonAction, ActionName
- State management: ViewBag, ViewData, TempData, hidden fields, query string, cookies
- Model binding and handling form posts
- Client-side and server-side validation
- Data annotations: Display, DataType, DisplayFormat
- Custom validation

PROGRAM CURRICULUM

MODULE 11 **ASP.NET Web API**

Build RESTful services that web and mobile apps can call.

- SOA and SOAP architecture
- REST and its principles
- Introduction to Web API
- Convention-based and attribute-based routing
- Action results
- Parameter and model binding
- CRUD operations

MODULE 12 **TypeScript**

The typed language used to build Angular applications.

- What TypeScript is and its capabilities
- Declaring variables and types
- Data types and type inference
- Functions and function types
- Generics
- Classes, interfaces and access modifiers

MODULE 13 **Angular**

Build single-page applications that consume your Web API.

- Angular features and versions
- Static, dynamic and single-page applications
- Setting up the Angular development environment
- Project structure and bootstrapping
- Modules: creating and adding feature modules
- Components and registering them with modules
- Displaying data and data binding
- Component communication: input and output binding

PROGRAM CURRICULUM

MODULE 14 **Real-Time Projects**

Apply C#, ASP.NET MVC, Web API, SQL Server and Angular to real-time applications:

Student Management System Register students, manage courses and track records.

Online Shopping (E-commerce) Application Product catalogue, cart and orders.

Hospital Management System Patients, doctors, appointments and billing.

Real-Time Chat Application Users exchanging messages in real time.

OUTCOMES **Course Outcomes**

By the end of this program, you will:

- ✓ Understand the .NET platform, CLR and Visual Studio
 - ✓ Use delegates, events, exception handling and threading
 - ✓ Access data with ADO.NET
 - ✓ Apply routing, HTML helpers, layouts, filters and validation
 - ✓ Write TypeScript and build Angular single-page applications
- ✓ Write C# programs using OOP, collections and generics
 - ✓ Design SQL Server databases and write queries, views and stored procedures
 - ✓ Build web applications with ASP.NET and ASP.NET MVC
 - ✓ Build REST APIs with ASP.NET Web API
 - ✓ Develop real-time full stack projects end to end

Tools & Technologies Covered

Backend

C#

.NET

ASP.NET

ASP.NET MVC

MVC Core

Web API

Frontend

HTML

TypeScript

Angular

Database

SQL Server

ADO.NET

Development Tools

Visual Studio

IIS

Postman

Tool names are used to describe the training content only.

Certification



On successful completion of the program, you receive the **.NET Full Stack Master's Program** certificate from Ascent Software Training Institute.

Placement Assistance Program



Resume Building

Crafting standout resumes tailored to .NET and full stack developer roles.



Career Counselling

Personalised career guidance and a roadmap for job success.



Job Alerts

Regular job alerts and listings for the latest openings.



Job Referrals

Connecting with hiring partners for referrals to companies.



Mock Interviews

Simulating real interview scenarios with expert feedback.



Interview Preparation

Key tips, common questions and best answers for technical interviews.



Soft Skills Training

Developing communication, teamwork and presentation abilities.



Placement Support

Guidance through the hiring process until you land a job.

Placement assistance supports your job search. Final hiring decisions are made by employers, based on each candidate's skills and interview performance.

Student Reviews



Maheedhar

.NET Developer

I recently completed my .NET course at Ascent, and it was a great learning experience. Mansoor Sir's practical teaching and real-time project insights made everything easy to understand. The course strengthened my fundamentals and boosted my confidence. I'm happy to share that I've been placed as an Intern at Abylle Solutions. Grateful to Ascent and Mansoor Sir for their support—highly recommended!



Manikanta

.NET Developer

I'm thrilled to have been selected as a Dot net developer. I extend my heartfelt gratitude to the Ascent faculty for their invaluable guidance and support.



Arfath

.NET Developer

Ascent institute is a good platform for learning .NET full stack. Mansoor Ali sir's teaching style is very clear; he covers topics like ASP.NET Core, MVC, Web API and SQL Server. The institute provides a proper lab, guidance and environment for practice.

Feedback from .NET students, as published by Ascent Software Training Institute. Outcomes are as stated by the students.

Talk to an Admission Counsellor

We have a dedicated team to counsel and guide you to choose the right course for your career goals. Book a free demo class, in the classroom or online.



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