

## .NET SYLLABUS

### **Best .NET Training in PUNE & Best .NET Training Institute in MAHARASHTRA**

RAHITECH is the biggest .NET training center in PUNE with high tech infrastructure and lab facilities and the options of opting for multiple courses at PUNE Location. RAHITECH in PUNE prepares thousands of aspirants for .NET at reasonable fees that is customized keeping in mind training and course content requirement of each attendee.

.NET training course involves "Learning by Doing" using state-of-the-art infrastructure for performing hands-on exercises and real-world simulations. This extensive hands-on experience in .NET training ensures that you absorb the knowledge and skills that you will need to apply at work after your placement in an MNC.

### IMPORTANCE OF .NET :-

Sr. No.	Syllabus
1	<b>Introduction to .NET</b> <ul style="list-style-type: none"> <li>• Introduction to .NET Framework</li> <li>• .NET Advantages</li> <li>• Common Language Runtime(CLR)</li> <li>• Common Type System (CTS)</li> <li>• .NET Framework Class Library (FCL)</li> <li>• Microsoft Intermediate Language(MSIL)</li> <li>• Just In Time(JIT) Compiler</li> <li>• Garbage Collection</li> <li>• Phases of Garbage Collection</li> </ul>
	<b>Programming With C#</b> <ul style="list-style-type: none"> <li>• Introduction of C #</li> <li>• Language features</li> <li>• Structure of a C# program</li> <li>• C# Tokens</li> <li>• Data Types</li> <li>• Variables and Expressions</li> <li>• Operators</li> <li>• Typecasting</li> <li>• Implicit Typecasting</li> <li>• Explicit Typecasting</li> <li>• Boxing and UnBoxing</li> </ul>

## .NET SYLLABUS

- Flow Control
- Conditions
- Loops
- Functions
- Defining Functions
- Function Elements
- Types Of Functions
- User-defined
- System-defined
- Passing Parameters
- By Value
- By Reference
- Using 'out'
- Using 'params'
- Function Overloading
- Function Overriding
- Arrays
- Features of Array
- Accessing Array Elements
- Type of Array
- Single Dimensional
- Multi-dimensional
- Jagged

**3**

### **Object Oriented programming**

- Object Oriented Programming Concepts
- Advantages of OOP
- Pillars of OOP
- Abstraction
- Inheritance
- Polymorphism
- Compile time polymorphism
- Run-time polymorphism
- Encapsulation
- What is a Class?
- Defining classes & class members
- Implementation of Classes
- Access modifiers
- public
- private
- protected
- internal
- protected internal
- Class Constructors

## .NET SYLLABUS

	<ul style="list-style-type: none"> <li>• Class Destructors</li> <li>• Interfaces</li> <li>• Declaring &amp; Using Interfaces</li> <li>• Interface Inheritance</li> <li>• Interfaces v/s Abstract classes</li> </ul>
4	<b>Collection framework</b> <ul style="list-style-type: none"> <li>• What is a Collection Framework?</li> <li>• Classes in Collection Framework</li> <li>• ArrayList</li> <li>• Hashtable</li> <li>• SortedList</li> <li>• Stack</li> <li>• Queue</li> </ul>
5	<b>Inheritance</b> <ul style="list-style-type: none"> <li>• What is Inheritance</li> <li>• Advantages of Inheritance</li> <li>• Types of Inheritance</li> <li>• Single</li> <li>• Heriarchical</li> <li>• Multi-level</li> <li>• Hybrid</li> <li>• Multiple</li> <li>• Method Overriding</li> </ul>
6	<b>Handling Exceptions in C#</b> <ul style="list-style-type: none"> <li>• Introduction to Exceptions</li> <li>• Exception handling</li> <li>• The Exception Class</li> <li>• C# Exception Handling Keywords</li> <li>• The Exception Chain</li> <li>• Exception Heirarchy</li> <li>• Pre-defined Exception Classes</li> <li>• Catching Specific Exceptions</li> <li>• Throwing Objects</li> <li>• User Defined Exceptions</li> </ul>

## .NET SYLLABUS

<b>7</b>	<b>Delegates and Events in C#</b> <ul style="list-style-type: none"> <li>• What are Delegates</li> <li>• Delegate Declaration</li> <li>• Instantiating Delegates</li> <li>• How to Call a Delegate</li> <li>• Types of Delegates</li> <li>• Single Cast Delegate</li> <li>• Multicast Delegate</li> <li>• Introduction to Events</li> <li>• Event Declaration</li> <li>• Delegates With Events</li> <li>• Publishers</li> <li>• Subscribers</li> </ul>
<b>8</b>	<b>ASP.NET</b> <ul style="list-style-type: none"> <li>• Introduction of ASP.NET</li> <li>• Concept of Web Applications</li> <li>• ASP.NET Architecture</li> <li>• Page Composition Parts</li> <li>• ASP.NET Page Life Cycle</li> <li>• Page Life Cycle Events</li> </ul>
<b>9</b>	<b>ASP.NET Controls</b> <ul style="list-style-type: none"> <li>• ASP.NET Server Controls</li> <li>• HTML Server Controls</li> <li>• Web Server Controls</li> <li>• Validation Controls</li> <li>• User define Controls</li> </ul>
<b>10</b>	<b>Styles &amp; Themes</b> <ul style="list-style-type: none"> <li>• What are Themes?</li> <li>• Applying Themes</li> <li>• Types of Themes</li> <li>• Inline</li> <li>• Embedded</li> <li>• External</li> </ul>
<b>11</b>	<b>Master and Content Pages</b> <ul style="list-style-type: none"> <li>• What are Master &amp; Content pages?</li> <li>• Advantages of Master Pages</li> </ul>

## .NET SYLLABUS

	<ul style="list-style-type: none"> <li>• Linking Content &amp; Master Pages</li> <li>• Working of Master pages</li> <li>• The @Page directive</li> <li>• Nested Master Pages</li> </ul>
12	<b>Navigation</b> <ul style="list-style-type: none"> <li>• What is Navigation?</li> <li>• Types of Navigation</li> <li>• Navigation Controls <ul style="list-style-type: none"> <li>○ SiteMapPath control</li> <li>○ TreeView control</li> <li>○ Menu control</li> </ul> </li> <li>• SiteMap File</li> </ul>
13	<b>Delegates and Events in C#</b> <ul style="list-style-type: none"> <li>• What are Delegates</li> <li>• Delegate Declaration</li> <li>• Instantiating Delegates</li> <li>• How to Call a Delegate</li> <li>• Types of Delegates</li> <li>• Single Cast Delegate</li> <li>• Multicast Delegate</li> <li>• Introduction to Events</li> <li>• Event Declaration</li> <li>• Delegates With Events</li> <li>• Publishers</li> <li>• Subscribers</li> </ul>
14	<b>MS SQL Server</b> <ul style="list-style-type: none"> <li>• Introduction to RDBMS</li> <li>• Features of RDBMS</li> <li>• Introduction to SQL</li> <li>• Creating Database objects</li> <li>• Managing &amp; Handling Database Objects</li> <li>• SQL Server Languages</li> <li>• Keys &amp; Constraints</li> <li>• Working with Operators</li> <li>• Working with Clause (Order By, Compute By, etc.)</li> <li>• Aggregate Functions</li> <li>• SQL Joins <ul style="list-style-type: none"> <li>○ Inner Join</li> <li>○ Outer Join</li> </ul> </li> </ul>

## .NET SYLLABUS

	<ul style="list-style-type: none"> <li>○ Cross join</li> <li>○ Equi Join</li> <li>○ Self Join</li> <li>• Subquery</li> <li>• Stored Procedures</li> </ul>
15	<b>ADO.Net</b> <ul style="list-style-type: none"> <li>• ADO.NET Object Model</li> <li>• ADO.NET Components</li> <li>• Perform Connectivity With Web Forms</li> <li>• Insert, Update, Delete Operations using Data Source Controls</li> <li>• Data Binding in ASP.Net</li> <li>• Working With GridView Control</li> <li>• Data bound controls</li> </ul>
16	<b>State Management in ASP.NET</b> <ul style="list-style-type: none"> <li>• What is State Management?</li> <li>• Types of State Management</li> <li>• Client-side state management</li> <li>• Server-side state management</li> <li>• Using View State</li> <li>• Session &amp; Application State</li> <li>• Using cookies &amp; URL Encoding</li> <li>• Transient Cookie</li> <li>• Persistent Cookie</li> <li>• ASP .Net Web Application Security</li> <li>• Authentication overview</li> <li>• Authorization overview</li> <li>• Caching</li> <li>• What &amp; Why of Caching</li> <li>• Output Caching</li> <li>• Data Caching</li> <li>• Fragment Caching</li> </ul>
17	<b>Introduction of LINQ</b> <ul style="list-style-type: none"> <li>• Introduction of LINQ</li> <li>• Features of LINQ</li> <li>• LINQ Architecture</li> <li>• Advantages of LINQ</li> <li>• DataContext in LINQ</li> <li>• LINQ Queries</li> <li>• Standard Query operators</li> </ul>

## .NET SYLLABUS

	<ul style="list-style-type: none"> <li>• LINQ to ADO.NET</li> <li>• LINQ to XML</li> <li>• Lambda Expressions</li> </ul>
18	<b>AJAX Technology</b> <ul style="list-style-type: none"> <li>• What is AJAX?</li> <li>• Features of AJAX</li> <li>• Pros &amp; Cons of AJAX</li> <li>• AJAX Architecture</li> <li>• AJAX Extension Controls               <ul style="list-style-type: none"> <li>○ Script Manager</li> <li>○ Update Panel Control</li> <li>○ Update Progress</li> <li>○ Timer</li> </ul> </li> <li>• ASP.NET AJAX Control Toolkit</li> <li>• Creating AJAX Application Using ASP.NET</li> </ul>
19	<b>Security</b> <ul style="list-style-type: none"> <li>• What is Authentication and Authorization?</li> <li>• Windows Authentication</li> <li>• Forms Authentication</li> <li>• Passport Authentication</li> <li>• Anonymous Authentication</li> <li>• Securing pages &amp; folders</li> <li>• Roles Management</li> <li>• Creating &amp; Authenticating Roles</li> <li>• Creating &amp; Authenticating Users Using Membership</li> </ul>
20	<b>ASP.NET MVC</b> <ul style="list-style-type: none"> <li>• Introduction to .Net MVC Framework</li> <li>• MVC Framework Features</li> <li>• MVC Architecture</li> <li>• MVC Components</li> <li>• MVC Application Folders</li> <li>• Configuration files</li> <li>• Working with Views</li> <li>• Routing</li> <li>• View Engines</li> <li>• HTML Helpers</li> <li>• Working with Controls</li> <li>• Validations</li> <li>• Data Annotation</li> </ul>

## **.NET SYLLABUS**

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|  | <ul style="list-style-type: none"><li>• Filters</li><li>• Types of Filters</li><li>• Layout</li><li>• Scaffold Template</li><li>• Entity Framework</li></ul> |
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### **RAHITECH Trainer's Profile for .NET Training in PUNE RAHITECH'S .NET Trainers are:**

- ☐ Are truly expert and fully up-to-date in the subjects they teach because they continue to spend time working on real-world industry applications.
- ☐ Have received awards and recognition from our partners and various recognized IT Organizations.
- ☐ Are working professionals working in multinational companies
- ☐ Are certified Professionals with 7+ years of experience, Are Well connected with Hiring HRs in multinational companies.

### **Placement Assistance after .NET Training in PUNE RAHITECH'S Placement Assistance**

- ☐ RAHITECH is the leader in offering placement to the students, as it has a dedicated placement wing which caters to the needs of the students during placements.
- ☐ RAHITECH helps the students in the development of their RESUME as per current industry standards.
- ☐ RAHITECH conducts Personality Development sessions including Spoken English, Group Discussions, Mock Interviews, Presentation skills to prepare students to face challenging interview situation with ease.
- ☐ RAHITECH has prepared its students to get placed in top IT FIRMS like **HCL, TCS, Infosys, Wipro, Syntel, Accenture and many more.**



## **.NET SYLLABUS**

### **RAHITECH Course duration for .NET Training in PUNE**

- ☐ **Fast Track Training Program** (6+ hours daily)
- ☐ **Regular Classes** (Morning, Day time & Evening)
- ☐ **Weekend Training Classes** (Saturday, Sunday & Holidays)