



Developing Applications in C# .Net / .Net Core (Intermediate C#) | Patterns, Generics, Threading, Database, Entity Framework, UI & More

www.triveratech.com

Course Snapshot

- **Course:** Developing Applications in C# .Net and .Net Core (Intermediate) | Patterns, Generics, Threading, Database, Entity Framework, UI & More (TTCN2155)
- **Duration:** 5 days
- **Audience & Skill Level:** Intermediate level for experienced C# .Net developers.
- **Hands-on Learning:** This course is approximately 50% hands-on lab to lecture ratio, combining engaging expert lessons, demos and group discussions with real-world, skills-focused machine-based labs and exercises. Student machines are required.
- **Delivery Options:** This course is available for **onsite private classroom presentation, live online virtual presentation**, or can be presented in a **blended learning format**. Please also ask about our **Self-Paced / Video / QuickSkills** or **Mini-Camp / Short Course** flexible delivery options.
- **Public Schedule:** This course has active dates on our live-online open enrollment **Public Schedule**.
- **Customizable:** This course agenda, topics and labs can be further adjusted to target your specific training skills objectives, tools and learning goals. Please ask for details.

Overview

Developing Applications in C# and .Net Core (Intermediate C# / .Net Core) is a lab-intensive, hands-on course designed to provide you with the skills required to take your C# programming skills to the next level. Throughout the course you'll explore C# Design Guidelines, Robust Classes, Generics, Lambda Expressions & LINQ, Reflection & Metadata, Resources & Globalization, Basics of Threading and the Basics of Database connectivity.

Learning Objectives

Our engaging instructors and mentors are highly experienced practitioners who bring years of current "on-the-job" experience into every classroom. Working in a hands-on learning environment, guided by our expert team, attendees will learn to:

- Design and implement classes that adhere to SOLID design principles
- Understand common design patterns
- Implement robust classes with properties, methods, delegates & events
- Understand, use, and implement generics
- Explore generics in the .Net Framework
- Understand and use Language integrated Query (LINQ)
- Understand and use Lambda expressions
- Build dynamic applications using reflection
- Use internationalization to build world friendly applications
- Build multithreaded applications
- Understand the basics of database access
- What's new in .Net Core and C#?

Audience & Pre-Requisites

This is an **intermediate-level** .Net programming course, designed for experienced C# developers

Take Before: Students should have development skills at least equivalent to the following course(s) or should have attended one of these as a pre-requisite:

- TTCN2100 Fast Track to C#.Net Programming for Experienced Developers (Level 1) (4 days)
- TTCN20483 Programming in C# | Creating Apps in C# and .Net Core (5 days)

Next Steps: We offer a wide variety of follow on courses for .Net development, web development, SOLID design, .Net services, .Net secure coding and others. Please see our **Microsoft Developer Training Suite** list of courses for recommended next steps.

Enhanced Learning Services: Please also ask about our **Pre-Training Class OnRamp & Prep / Primer offerings, Skills Gap Assessment Services, Case Studies, Knowledge Check Quizzes, Skills Immersion Programs & Camps, Collaborative Mentoring Services and Extended Learning Support & Post Training services.**

Course Topics / Agenda

Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We will work with you to tune this course and level of coverage to target the skills you need most. Course agenda, topics and labs are subject to adjust during live delivery in response to student skill level, interests and participation.

1. **Quick C# Basics Refresher**
2. **Design Guidelines**
 - Conventions
 - Class Design guidelines
 - Exception Design guidelines
 - Common Design Patterns
3. **Robust Classes**
 - Properties
 - Functions
 - Delegates
 - Events
 - .Net Core and C# 9+ features
4. **Generics**
 - Generic Classes
 - Generic Functions
 - Survey of Generics in the .Net Library
5. **Lambda Expressions & LINQ**
 - Using lambdas to generate a delegate
 - Introduction to Language Integrated Query (LINQ)
6. **Reflection & Metadata**
 - Reflections basics
 - Attributes
7. **Resources & Globalization**
8. **Basics of Threading**
 - Creating Threads
 - Coordinating threads
 - Overview of the task parallel library
9. **Basics of Entity Framework**
 - DbContext
 - Code first vs Db first
 - Entities
 - Mapping

Student Materials & Lab Environment

All course software (limited versions, for course use only), digital courseware files or course notes, labs / data sets and solutions (as applicable) are provided for you in our “easy access / no install required” high-speed remote lab environment. In most cases, we can also offer local (non-cloud) set up as an alternative. Either way, our dedicated live tech team works with every student to ensure everyone is set up with working access and ready to go prior to every course start date, ensuring a smooth delivery and great hands-on experience. All your coursework can be accessed or downloaded after class, so you never lose your work or materials. Please ask for details.

For More Information

For more information about our dedicated training services, collaborative coaching services, courseware licensing options, public course schedule, training management services, partner programs, or to see our complete list of course offerings and special offers please visit us at www.triveratech.com, email Info@triveratech.com or call us toll free at **844-475-4559**. Our pricing and services are always satisfaction guaranteed.

TRIVERA TECHNOLOGIES • Collaborative IT Training, Coaching & Skills Development Solutions
www.triveratech.com • toll free +1-844-475-4559 • Info@triveratech.com • Twitter TriveraTech

ONSITE, ONLINE & BLENDED TRAINING SOLUTIONS • PUBLIC / OPEN ENROLLMENT COURSES • COURSEWARE LICENSING & DEVELOPMENT MENTORING • ASSESSMENTS • LEARNING PLAN DEVELOPMENT • SKILLS IMMERSION PROGRAMS / RESKILLING / NEW HIRE / BOOT CAMPS PARTNER & RESELLER PROGRAMS • CORPORATE TRAINING MANAGEMENT • VENDOR MANAGEMENT SERVICES

Trivera Technologies is a Woman-Owned Small-Business Firm