C# Developer

Duration: 5 Days   Course Code: C-SHARP

Overview:

The C# Developer course comprises sessions dealing with C# applications,variables and operators,decision and loop constructs,arrays,enums,methods,objects,classes,structs,delegates,events,object-oriented principles,exception handling,file IO,database access,LINQ and deployment.
Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

Target Audience:

This course is aimed at anyone who wants to learn C# as a first language and developers who want to migrate to C# from another language,particularly those with little or no object-oriented knowledge.

Objectives:

■ This course aims to provide the delegate with the knowledge to be able to produce simple C# applications that exploit the core elements of the language including variables,expressions,selection and iteration,arrays,methods,classes and objects,structs,encapsulation,inheritance and polymorphism,exceptions,file IO,LINQ and deployment.

Prerequisites:

Delegates attending this course should have some previous programming experience and be able to define general programming concepts including: compilation,execution,variables,arrays,sequence,selection,iteration ,functions,objects,and classes. Moreover delegates should be able to navigate the filesystem (on the command line ideally),edit and save text files and browse the web. This knowledge can be obtained by attendance on the pre-requisite Introduction to Programming course.

Content:

C# Developer Training Course   Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: INTRODUCING C#

- History of the Language
- C# and .NET
- Common Intermediate Language
- Common Language Runtime
- Compiling and Running Code
- Development tools

Session 2: VARIABLES

- Using Namespaces
- Declaring Variables
- Value and Reference Types
- Datatypes
- Variable Scope

Session 3: OPERATORS

- Arithmetic Operators
- Unary Operators
- Concatenation Operators
- Comparison Operators
- Logical Operators

Session 4: DECISIONS

- If Statements
- Switch Statements   C# Developer Training Course   Course Contents - DAY 2

Session 5:LOOPS

- Types of Loop
- Break and Continue Statements

Session 6: ARRAYS AND ENUMS

- Populating Arrays
- Looping Through Arrays
- Working with Enums

Session 7: METHODS

- Fields and Methods
- Method Parameters
- Method Overloading
- Optional Parameters

Session 8: OBJECTS

- Creating Objects
- Instance Fields
- Instance Methods   C# Developer Training Course   Course Contents - DAY 3

Session 9: CLASSES AND STRUCTS

- Class Structure
- Constructors
- Using Structs

Session 10: ENCAPSULATION

- Access Modifiers
- Getters and Setters
- Properties

Session 11: STATIC MEMBERS

- Static Fields
- Static Methods
- Static Classes
- Static Context

Session 12: INHERITANCE AND POLYMORPHISM

- Object Oriented Programming
- Extending Classes
- Inheritance Modifiers
- Polymorphism   C# Developer Training Course   Course Contents - DAY 4

Session 13: ABSTRACTION AND INTERFACES

- Abstract Methods
- Abstract Classes
- Using Interfaces
- Interface Polymorphism

Session 14: EXCEPTION HANDLING

- Throwing Exceptions
- Catching Exceptions
- Using try,catch and finally
- Custom Exceptions

Session 15: STRINGS AND DATES

- The String Class
- Using StringBuilder
- Date Handling
- Formatting Numbers

Session 16: COLLECTIONS

- Working with Collections
- Generic Collections
- The List Class
- The Dictionary Class   C# Developer Training Course   Course Contents - DAY 5

Session 17: DELEGATES,LAMBDAS AND EVENTS

- Creating Delegates
- Lambda Expressions
- Events and Event Handlers

Session 18: FILE IO

- I/O Streams
- Handling Files
- Serialising and Deserialising Data

Session 19: LINQ

- Query Expressions
- Ordering and Projection
- Grouping and Joins
- LINQ to XML

Session 20: DATABASES AND ENTITIES

- Accessing Databases
- Using ADO.NET
- Entity Framework
- LINQ to SQL

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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