**Course Outline (2 Hours Per Day for 45 Days)**

**Day 1-2: Introduction to Visual Studio and Visual Studio Code**

**Hour 1: Overview of Visual Studio**

* UI, tools, project types, etc.

**Hour 2: Creating and Managing Projects in Visual Studio**

* Practical exercises and Q&A

**Hour 3: Introduction to Visual Studio Code**

* Overview and features

**Hour 4: Creating DLL Packages Using VS Code**

* Hands-on practice

**Day 3-4: Working with VS Code**

**Hour 1: Compiling and Testing DLL Packages in VS Code**

* Practical exercises

**Hour 2: Review and Q&A**

**Hour 3: Hands-on Practice with Visual Studio and VS Code**

* Practical exercises and projects

**Hour 4: Review and Q&A**

**Day 5-6: Basics of C#**

**Hour 1: .Net Framework vs .Net Core**

* Concepts and differences

**Hour 2: Variables and Data Types**

* Practical exercises

**Hour 3: String Manipulation**

* Functions and methods

**Hour 4: Regular Expressions (Regex)**

* Practical exercises and Q&A

**MILESTONE 1**

**Day 7-8: File Handling and LINQ in C#**

**Hour 1: File Handling in C#**

* Reading and writing files

**Hour 2: Introduction to LINQ**

* Basic concepts

**Hour 3: LINQ Continued**

* Advanced features and usage

**Hour 4: Review and Q&A**

**Day 9-12: Object-Oriented Programming (OOP) in C#**

**Hour 1: Introduction to OOP Concepts**

* Overview and importance

**Hour 2: Classes and Objects**

* Creating and using classes

**Hour 3: Inheritance**

* Concepts and practical examples

**Hour 4: Polymorphism**

* Method overriding and overloading

**Hour 5: Encapsulation**

* Data hiding and access modifiers

**Hour 6: Interfaces**

* Definition and usage

**Hour 7: Review and Q&A**

* Practical exercises

**Hour 8: Hands-on Practice with OOP Concepts**

* Real-world examples and projects

**MILESTONE 2**

**Day 13-16: Advanced OOP and Collections**

**Hour 1: Abstract Classes and Methods**

* Concepts and examples

**Hour 2: Interfaces in Depth**

* Detailed usage and implementation

**Hour 3: Collections - Arrays and Lists**

* Overview and practical usage

**Hour 4: Collections - DataTables**

* Creating and managing DataTables

**Hour 5: LINQ with Collections**

* Practical exercises

**Hour 6: Review and Q&A**

* Recap and clarification

**Hour 7: Hands-on Practice with Collections**

* Projects and exercises

**Hour 8: Review and Q&A**

**MILESTONE 3**

**Day 17-20: Specific Data Handling Topics**

**Hour 1: Working with XML in C#**

* Parsing and manipulating XML

**Hour 2: Parsing CSV Files with a Generic Parser**

* Practical exercises

**Hour 3: Excel Handling with CloseXML Library**

* Reading and writing Excel files

**Hour 4: Excel Read Functionality Using Oledb**

* Practical examples

**Hour 5: Working with JSON in C#**

* Parsing and generating JSON

**Hour 6: Hands-on Practice with XML, CSV, Excel, and JSON**

* Projects and exercises

**Hour 7: Review and Q&A**

* Recap and clarification

**Hour 8: Hands-on Practice Continued**

* More exercises and projects

**MILESTONE 4**

**Day 21-24: API Development and Integration**

**Hour 1: Introduction to RestAPI**

* Concepts and examples

**Hour 2: Building and Consuming RestAPI in C#**

* Practical exercises

**Hour 3: Introduction to SOAP**

* Concepts and usage

**Hour 4: Working with ServiceNow APIs**

* Practical examples

**Hour 5: Working with Box APIs**

* Practical exercises

**Hour 6: Hands-on Practice with APIs**

* Projects and real-world examples

**Hour 7: Review and Q&A**

* Recap and clarification

**Hour 8: Hands-on Practice Continued**

* More exercises and projects

**MILESTONE 5**

**Day 25-28: Database Binding and ADO.NET**

**Hour 1: Introduction to Databases in C#**

* Concepts and overview

**Hour 2: Basics of ADO.NET**

* Practical examples

**Hour 3: Connecting to a Database Using ADO.NET**

* Practical exercises

**Hour 4: Executing Commands and Reading Data**

* Real-world examples

**Hour 5: Data Binding in ADO.NET**

* Practical exercises

**Hour 6: Hands-on Practice with ADO.NET**

* Projects and exercises

**Hour 7: Review and Q&A**

* Recap and clarification

**Hour 8: Hands-on Practice Continued**

* More exercises and projects

**MILESTONE 6**

**Day 29-32: Automation with Selenium**

**Hour 1: Introduction to Selenium**

* Concepts and setup

**Hour 2: Setting up Selenium with C#**

* Practical exercises

**Hour 3: Working with Xpath and DOM in Selenium**

* Practical examples

**Hour 4: Using JQuery for Selectors in Selenium**

* Advanced techniques

**Hour 5: Chrome Automation Using Selenium**

* Practical exercises

**Hour 6: Hands-on Practice with Selenium**

* Projects and real-world examples

**Hour 7: Review and Q&A**

* Recap and clarification

**Hour 8: Hands-on Practice Continued**

* More exercises and projects

**MILESTONE 7**

**Day 33-36: PDF and Win32 Controls**

**Hour 1: Introduction to Itext Sharp for PDF Manipulation**

* Concepts and usage

**Hour 2: Creating and Modifying PDFs with Itext Sharp**

* Practical exercises

**Hour 3: Working with Win32 Controls in C#**

* Concepts and examples

**Hour 4: Invoking Other Scripts (JavaScript, Python, etc.) within .Net**

* Practical exercises

**Hour 5: Hands-on Practice with PDFs and Win32 Controls**

* Projects and real-world examples

**Hour 6: Review and Q&A**

* Recap and clarification

**Hour 7: Hands-on Practice Continued**

* More exercises and projects

**Hour 8: Project Day - Implement a Small Project**

**MILESTONE 8**

**Day 37-40: Working with SharePoint and Outlook**

**Hour 1: Introduction to SharePoint Libraries**

* Concepts and usage

**Hour 2: Interacting with SharePoint in C#**

* Practical exercises

**Hour 3: Introduction to Outlook Integration**

* Concepts and usage

**Hour 4: Automating Outlook Tasks Using C#**

* Practical exercises

**Hour 5: Hands-on Practice with SharePoint and Outlook**

* Projects and real-world examples

**Hour 6: Review and Q&A**

* Recap and clarification

**Hour 7: Hands-on Practice Continued**

* More exercises and projects

**Hour 8: Project Day - Implement a Small Project**

**MILESTONE 9**

**Day 41-45: O365 Apps and Logging**

**Hour 1: Introduction to O365 Apps Integration**

* Concepts and usage

**Hour 2: Working with O365 Apps in C#**

* Practical exercises

**Hour 3: Introduction to Logging in C#**

* Concepts and usage

**Hour 4: Using Log4net for Logging**

* Practical exercises

**Hour 5: Implementing Logging in a Project**

* Real-world examples

**Hour 6: Hands-on Practice with O365 Apps and Logging**

* Projects and exercises

**Hour 7: Review and Q&A**

* Recap and clarification

**Hour 8: Hands-on Practice Continued**

* More exercises and projects

**MILESTONE 10**