

## Fruto Academy C# Development Course Syllabus

### Course Overview:

Welcome to the Fruto Academy C# Development Course! This comprehensive program will provide you with the skills and knowledge needed to become a proficient C# developer. Throughout this course, you'll learn the fundamentals of C# programming, object-oriented principles, and how to build various types of applications using C#.

Course Duration: 12 weeks

### Week 1-2: Introduction to C# Programming

- Understanding programming concepts and paradigms
- Introduction to the C# programming language
- Setting up C# environment and IDE

### Week 3-4: C# Basics

- Variables, data types, and basic operators
- Control structures: conditionals and loops
- Functions and methods
- Handling exceptions and errors

### Week 5-6: Object-Oriented Programming (OOP) in C#

- OOP principles: encapsulation, inheritance, and polymorphism
- Creating and using classes and objects
- Designing and implementing class hierarchies

### Week 7-8: Windows Forms and GUI Applications

- Introduction to graphical user interface (GUI) design
- Building Windows Forms applications
- Designing interactive interfaces with controls

### Week 9-10: C# and Databases

- Connecting C# applications to databases (SQL Server)
- Writing SQL queries and executing CRUD operations
- Using ADO.NET for database interaction

### Week 11: ASP.NET Web Development

- Introduction to web development with ASP.NET
- Building web applications using ASP.NET
- Handling routes, controllers, and views

### Week 12: Final Project and Deployment

- Applying C# skills to a real-world project
- Deploying C# applications to web servers

- Final project: Develop and deploy a complete web application using ASP.NET

#### Assessment and Certification:

- Weekly coding assignments: 40%
- Midterm project (C# application development): 20%
- Final project: 30%
- Participation and quizzes: 10%

#### Recommended Resources:

- "C# 9.0 in a Nutshell" by Joseph Albahari and Ben Albahari
- "Programming C# 8.0" by Ian Griffiths
- Online tutorials and documentation for C