**CORE C# PROGRAMMING**

1. Introduction a. History of C# b. C# the .Net framework and (console runtime) c. Memory Management and garbage collection

2. Simple practice a. Visual Studio b. Creating a console application c. Creating a rich desktop application d. Creating a simple web application e. Reviewing the code former app

3. Language Fundamentals a. Everything is an object b. Understanding C# syntax c. Identifier naming convention d. Using the documentation

4. Declaring variables a. Using built-in data types b. Declaring variables c. Working with characters d. Working with strings e. Building strings with stringBuilder f. Parsing strings as numbers g. Using mathematical operators h. Hacking wit Boolean values and expressions i. Using constants and enumerations j. Working with dates and time

5. Managing Application flow a. Getting input in a console application b. Evaluating conditions with if and else statements c. Evaluating conditions with switch statements d. Looping statements e. Creating reusable codes with methods f. Managing variable visibility and scope g. Managing flow with break and continue h. Challenge: Building a simple calculator

6. Exception Handling and Debugging a. Understanding runtime exceptions b. Debugging exceptions in your code c. Handling exceptions with try/catch d. Using multiple catch statements e. Cleaning up with finally