**Day 1**

1. Developer Setup
2. Installation Required for .NET Developers
   * Client Setup (Running .NET Applications)
3. The System.Data.DLL Assembly
4. CLR (Common Language Runtime) and JIT (Just-In-Time Compiler)
5. Common Language Specification (CLS)
6. Common Type System (CTS)
7. What is a .NET Assembly?
8. Compilation Process
9. Key Components of a .NET Assembly:
   * MSIL
   * Type Metadata
   * Resources
   * Assembly Metadata (Versioning, strong names, security permissions, dependencies, etc.)
10. Creating a DLL in C#
11. Key Differences Between .NET and C++ EXEs

**Day 2**

1. DLL and EXE
2. Memory Location
3. Execution Flow
4. Advantages of DLL
5. CLR (Common Language Runtime)
6. DLL Sharing
7. Managed Execution
8. Core System Libraries:
   * System.DLL and System.Data.DLL
   * CLR
9. Compilation
10. MSIL
11. Switch Case
12. Array

**Day 3**

1. Assembly:
   * Private Assembly
   * Shared Assembly
2. Class
3. Getter & Setter
4. Command Line Argument
5. Debugging
6. Inheritance
7. Virtual Keyword
8. Value Type, Reference Type, and Primitives
9. Factory Pattern
10. Interface
11. Sealed Keyword
12. Console App
13. Web
14. Class Library

**Day 4**

1. Delegates
2. Desktop Application
3. Events and Event Delegates
4. Collection
5. Generics

**Day 5**

1. File I/O
2. Reflection
3. Attributes (Custom Attributes)

**Day 6**

1. File I/O:
   * Serialization
   * Reflection
   * ORM Attribute
   * POCO
2. C# Features

**Day 7**

1. C# Features:
   * Partial Class
   * Nullable Value
   * Anonymous Method
   * Implicit Type
   * Auto Property
   * Object Initializer
   * Anonymous Type
   * Extension Method
   * Lambda Expression
   * LINQ
   * Filtering Data using foreach Loop

**Day 8**

1. Expression Tree
2. C# Features:
   * Dynamic Type
   * Optional and Named Parameter
   * Explicit Parallel Programming
3. Threading

**Day 9**

1. Implicit Parallel Programming:
   * Parallel For and ForEach
   * Parallel LINQ
2. Database
3. Iterator
4. LINQ
5. ADO.NET:
   * Connected Architecture
   * Connected Database

**Day 10**

1. ADO.NET:
   * Disconnected Architecture
2. Entity Framework
3. MVC Introduction

**Day 11**

1. MVC Architecture & Lifecycle
2. ASP.NET MVC Core
3. REST Service (Web API)