TRAINING CONTENTS

Session No.	Topics	No. of class hours
1	**Module 1: Introduction To C#** **Lecture:** • C# Syntax • C# Output • C# Variables • C# Data Types • C# Type Casting • C# User Input • C# Operators • C# Condition Handling • C# Switch Statement • C# Loop • C# Arrays • C# Methods & Methods Operation **Practical:** ● Based on Lectures.	3
2	**Module 1: OOP & C#** **Lecture:** ● Class & Instances ● Constructors & Destructors ● Access Modifiers ● Polymorphism ● Inheritance ● Abstraction ● Abstract Class ● Interface ● C# Usable Data Structures (i.e. Dictionary, Lists) **Practical:** ● Based on Lectures.	3
3	**Module 2: ASP .NET Introduction** **Lecture:** • What is ASP.NET? • Why use ASP.NET? • Key Features of ASP.NET • Setting Up Your Development Environment • Installing Visual Studio and .NET Runtime Environments. • Initializing Databases (SQL Server) • Project Structure **Practical:** ● Based on Lectures.	3
4	**Module 3: SQL Server Introduction (i)** **Lecture:** • Basic Queries. • DDL for SQL Server	3

	• DML SQL Server • DCL SQL Server. • When to choose SQL Server. **Practical:** ● Based on Lectures.	
5	**Module 3: SQL Server Introduction (ii)** **Lecture:** • Stored Procedures • Functions. • View. **Practical:** ● Based on Lectures.	3
6	**Module 3: SQL Server Introduction (iii)** **Lecture:** • Trigger. • Transactions. • Indexing. • Hashing. • SQL Server Profiler. **Practical:** ● Based on Lectures.	3
7	**Module 4: Exploring ASP.Net Webform.** **Lecture:** ● Architecture. ● Applications Scopes. ● Create first Application. ● Introducing Razor. ● ORM. ● Connect with Database. ● Nuget Package Manager & Console. ● Entity Frmework. ● Razor. **Practical:** ● Based on Lectures.	3
8	**Module 5: Exploring ASP.Net 6.0 Web App(i)** **Lecture:** ● Architecture of ASP.Net 6.0 ● Project Structures. ● Middleware. ● Services. **Practical:** ● Based on Lectures.s	3

9	**Module 5: Exploring ASP.Net 6.0 Web App(ii)** **Lecture:** ● Create first Application. ● Introducing Razor. ● ORM & EFCore. ● Connect with Database. ● Async Call. ● Lazy Loading in EFCore. ● Lambda Expression in C#. ● LINQ. **Practical:** ● Based on Lectures.	3
10	**Module 5: Exploring ASP.Net 6.0 Web App(iii)** **Lecture:** ● CRUD Operation using direct query execution. ● ORM Details (EF Core) **Practical:** ● Simple project based on Lectures.	3
11	**Module 5: Exploring ASP.Net 6.0 Web App(iv)** **Lecture:** ● ORM Details (EF Core) ● CRUD Using ORM ● CRUD Using Stored Procedures. **Practical:** ● Project based on Lectures.	3
12	**Module 6: Authentication & Authorization** **Lecture:** ● Core concept of Authentication. ● Core concept of Authorization. ● Different types of Authentications in ASP.Net.(i.e. cache, cookies, jwt, oauth) **Practical:** ● Project based on lectures.	3

13	**Module 7: Standard Coding & Design Pattern(i).** **Lecture:** ● Code First Approach. ● Database First Approach. ● Migrations. ● MVC Architecture. ● MVVM Architecture. ● SOLID Principles. ● Repository Pattern. **Practical:** ● Simple Project Implementation.	3
14	**Module 7: Standard Coding & Design Pattern(ii)** **Lecture:** ● Unit of Works. ● Micro-service Architecture. **Practical:** ● Application Architecture.	3
15	**Module 8: ASP.Net API** **Lecture:** ● What is API? ● Rest vs Restful vs minimalistic API. ● HTTP vs HTTPS. ● HTTP Verbs. ● SOAP API ● Cross-site Application. **Practical:** ● Based on Lectures.	3
16	**Module 9: ASP.Net Web API** **Lecture:** ● Web API Implementation. ● Necessary tools Installation. ● Authentication & Authorization in Micro-service. **Practical:** ● Implement A Small Project.	3
17	**Module 10: ASP.NET as BI Reporting** **Lecture:** ● SSRS ● SSIS ● SSAS **Practical:** ● Relevant Projects.	3
18	**Module 10: RDLC & SSRS Integration** **Lecture:** ● SSRS with Asp.NET Core. ● RDLC with Asp.net Core. **Practical:**	3

	• Relevant Projects.	
19	**Module 11: Git & GitHub** **Lecture:** • Repository. • Git Operations. **Practical:** • Play with Git & Github.	3
20	**Module 12: Handling Real Time Data & Bulk Data** **Lecture:** • SingnalR • Bulk data handling mechanisms. **Practical:** • Simple Projects.	3
21	**Module 13: Industry Practice & Deployment Details.** **Lecture:** • IIS Server Configuration. • Report Server Configuration. • SQL Server Configuration. **Practical:** • Profile an Android app • Optimize UI rendering performance • Implement best practices for performance	3
22	**Module 14: Project Implementation Covering all Topics** **Practical:** • Architecture Design & Project Implementation	3
23	• **Module 14: Project Implementation Covering all Topics** • **Practical:** • Architecture Design & Project Implementation	3
24	**Module 14: Project Implementation Covering all Topics** **Practical:** • Architecture Design & Project Implementation • Define functional and non-functional requirements • Prepare a development timeline with milestones	3
25	**Module 14: Project Implementation Covering all Topics** **Practical:** • Architecture Design & Project Implementation	3

26	**Module 14: Project Implementation Covering all Topics** **Practical:** ● Architecture Design & Project Implementation	3
27	**Module 14: Project Implementation Covering all Topics** **Practical:** ● Architecture Design & Project Implementation Preparing for final project presentation	3
	Total class hours	81 hours
28	**CV Writing:** Crafting an effective CV, structuring for impact, tailoring CVs for job roles, common mistakes, and ATS optimization	3
29	**Job Interview:** Resume-based and behavioral interviews, common interview questions, the STAR method, body language, and mock interview practice	4
30	**Industrial Life:** Workplace culture, professional ethics, career growth, communication skills, handling work pressure, and networking strategies	3
3	**Total mentorship class hours**	10