.Net Foundation (week 1 – 5)

Day #	Date	Work done
1	21-08-2023	Morning Orientation with management RDBMS intro
2	22-08-2023	Introduction to .Net Introduction to C#
3	23-08-2023	OOPS Inheritance, polymorphism, Interface and Abstract classes
4	24-08-2023	Strings, StringBuilder, Handling Errors and Exceptions in C#
5	25-08-2023	Exceptions, DateTime Enum LinkedIn Elearning
	26-08-2023	Weekend - 1
	27-08-2023	Weekend - 1
6	28-08-2023	Module Test Arrays and Collections
7	29-08-2023	Dictionary, Generic Collections, GetHashCode(), Method Parameters, Inner Classes, Assignments, Delegates
8	30-08-2023	Lambdas, and Events Introduction to Threading and in C#
9	31-08-2023	Tasks, File I/O, Stream Management and Serialization in C#
10	01-09-2023	Understanding Memory Management in C# Working with Libraries, Assemblies, NuGet
	02-09-2023	Weekend - 2
	03-09-2023	Weekend - 2
11	04-09-2023	Microsoft Certification Test, First test Corrections Introduction to ASP.NET Core, Setting up ASP.NET Core Project
12	05-09-2023	ASP.Net MVC, Routing, Controllers, and Actions, Views, Razor page Syntax, Model Binding and Validation
13	06-09-2023	SQL Server - TSQL
14	07-09-2023	Entity Framework Core- Introduction to Entity Framework Core, Setting up Entity Framework Core
15	08-09-2023	Entity Framework Core - Creating Models and Database Context, Querying Data, Relationships and Navigation Properties
	09-09-2023	Weekend - 3
	10-09-2023	Weekend - 3

16	11-09-2023	Module Test
	11-09-2023	Introduction to Web API
17	12-09-2023	Creating Web API Project HTTP Methods and Controllers Testing Web API with Postman
18	13-09-2023	HTML Helper Classes, and Advanced Razor
19	14-09-2023	SQL Server - Joins, SP, Views, Functions
20	15-09-2023	Assignment - MVC Online Session Create repository For Customer GetAllCustomerID -> List<int> FindCustomerByID -> Customer GetCustomerOrders -> List<Order> Create Customer Controller Show all Customer Name in DropdownList Show the selected Customer in a Detail View with all Orders of the Customer as Partial View Upload RepositoryCustomer.cs, CustomerController.cs and the View as a zip file in folder <CustomerMVC> Add your Name and ID in the zip file
	16-09-2023	Weekend - 4
	17-09-2023	Weekend - 4
	18-09-2023	Holiday
	19-09-2023	Holiday
21	20-09-2023	Intro to GIT - Installing Git Configuring Git (username, email) git init, git add, git commit
22	21-09-2023	git status, git log git branch, git checkout, git merge git remote, git clone, git pull, git push Working with others on GitHub Resolve merge conflicts Commit messages, branching strategies Case studies of Git in real-world projects
23	22-09-2023	Buffer day - Module Test
24	23-09-2023	Compensation session for Monday 18/9/2023
	24-09-2023	Weekend - 5

Web-Development (Week 5-10)

Week	Topic	Sub Topic
1	Introduction to Web	What is the web? Importance of HTML Introduction to HTML Basic concepts (tags, elements, attributes) HTML Document Structure Basic HTML Tags HTML Forms
	HTML Tables	Creating tables with HTML HTML Semantics Multimedia in HTML HTML5 Features HTML Validation Responsive Design Practical Use Cases
	Introduction to CSS5	Overview of CSS5 and its evolution Basics of CSS5 Box Model & Layout Responsive Design
2	Advanced Layout & Visual Effects	Grid layout, Shadows, Blending, Filters Transitions, Animations & Motion Graphics Cross Browser Compatibility Practice Work & Review
	Introduction to JavaScript	Overview of JavaScript, History, and Evolution Basics of JavaScript Control Flow
	Functions and Scope	Declaring Functions, Function Expressions, Scope and Closures Objects and Arrays DOM Manipulation
3	Advanced JavaScript Concepts	Prototypes, Promises, Async/Await Error Handling ES6+ Features
	Fetch API, FAST API, Local Storage	Web APIs Project Work & Review
	Introduction to ReactJS	What is ReactJS, Why Use ReactJS, Setting up the Development Environment React Basics
	State and Lifecycle	Understanding State, Handling State with use State Hook, Class Component State, Component Lifecycle Methods Handling Events and Forms

3	Introduction to Express.js and Node.js	- Understand the role of Express.js in web development. - Learn about the basics of Node.js as a runtime environment. - Set up a basic Express.js application. - Handle routes and requests using Express.js.	
	Middleware and Routing in Express.js	- Learn about middleware functions in Express.js. - Implement custom middleware for request handling. - Understand routing and create RESTful APIs with Express.js.	
	Templating Engines and Views in Express.js	- Introduce templating engines like EJS or Pug. - Set up views and dynamic rendering in Express.js. - Learn about layout and partials in templating engines.	
4	Database Integration with Express.js	- Connect and interact with databases (e.g. MySQL) in Express.js. - Implement CRUD operations with database models. - Handle data validation and error handling.	
	User Authentication and Authorization	- Implement user authentication using middleware like Passport.js. - Set up role-based access control for routes. - Understand security best practices for user authentication.	
	Introduction to Angular 14	Overview of Angular 16, Setup and Installation Angular 16 Components Angular 16 Directives Angular 16 Services Routing and Navigation	
	Forms	Template-driven Forms, Reactive Forms	
	Internationalization	Implementing Internationalization	
		Service Workers & PWA	
	Web Workers	Understanding Web Workers, Implementing Web Workers	
		Server-side Rendering	
		Prerendering	
5	Final Project & Review	Building a Simple Angular App using Concepts Learned	
	Styling and CSS	Inline Styles, CSS Modules, Styled Components Routing Advanced Concepts Hooks	
	Data Fetching	Fetch API, Axios, Handling Loading State Deployment Final Project & Review	