**Full Stack Development using .Net Core**

1. **HTML 5 + CSS3 Advanced**

* Deep dive into the latest features of HTML5 and CSS3
* Techniques for responsive design and mobile-first development
* CSS animations, transitions, and transformations

**2.** **CSS Positions, Box Model, Flexbox, and CSS Grid Layout**

* Understanding CSS positions
* Understanding the Box Model in-depth
* Building layouts using Flexbox
* Creating complex grid-based layouts with CSS Grid

**3.** **Introduction to JavaScript**

* Basics of JavaScript: Variables, Functions, and Control Structures
* Understanding the role of JavaScript in modern web development

**4.** **Concept of DOM and DOM Manipulation**

* Introduction to the Document Object Model (DOM)
* Manipulating DOM elements using JavaScript
* Introduction to jQuery for easier DOM manipulation

**5.** **Advanced jQuery Techniques**

* Working with jQuery plugins: Date Time Picker, Date Range Picker, Color Picker
* Enhancing UI with Font Awesome, Material Design Icons, Feather Icons etc.
* Introduction to CSS frameworks like Bootstrap

**6.** **Bootstrap for Layout and Customization**

* Building responsive layouts using Bootstrap
* Customizing Bootstrap templates to fit project needs
* Introduction to JSON

**7.** **Advanced JSON Handling**

* Understanding JSON structure and data types
* Serialization and deserialization of JSON data
* Working with jQuery and JSON
* Introduction to Vue.js 3.x (jQuery Alternative)

**8.** **Vue.js 3.x for Dynamic Forms and attractive UI**

* Vue.js application lifecycle, events, methods
* Advanced working with Vue.js

**9.** **Client vs Server Architecture**

* Understanding the difference between client-side and server-side
* Introduction to .NET Framework vs .NET Core
* First C# program and understanding basic fundamentals of C# language

**10.** **Object-Oriented Programming (OOP) in C# - Part 1**

* Introduction to Enums, Structures, and Classes
* Understanding data members and functional members
* Class relationships, access modifiers, and working with interfaces

**11.** **Object-Oriented Programming (OOP) in C# - Part 2**

* Creating and implementing interfaces
* Understanding encapsulation, abstraction, inheritance, polymorphism, and composition
* Introduction to delegates

**12.** **Introduction to SQL Server and Databases**

* Understanding the basics of SQL Server
* Creating and managing databases and tables
* Introduction to Entity Framework Core and its connection to SQL Server, MySQL, and PostgreSQL etc.

**13.** **Database Modeling with Entity Framework Core**

* Understanding database relationships in ORM classes
* Installing NUGET packages and resolving dependency tree for Offline Package Sources
* Creating migrations, updating databases, and seeding data

**14.** **Getting Started with ASP.NET Core MVC**

* Understanding Models, Views, and Controllers
* Exploring application flow, services, and configurations
* Importance of Dependency Injection in ASP.NET Core

**15.** **Working with Layouts and Views**

* Understanding Layouts, Partial Views, and Sections
* Model binding, strongly-typed views, and view data management

**16.** **Application State Management**

* Managing data flow, status codes, and redirects
* Application state management using strongly-typed views, ViewBag, ViewData, and TempData

**17.** **CRUD Operations with Entity Framework Core**

* Performing CRUD operations using scaffolding options
* Customized CRUD without scaffolding
* Creating N-Tier applications for code reusability and portability

**18.** **Advanced Working with LINQ, Lambda**

* Understanding and implementing lambda expressions in LINQ
* Using LINQ for data selection, filtering, sorting, and ordering

**19.** **Repository Pattern and Unit of Work**

* Introduction to the Repository Pattern and Unit of Work
* Handling database transactions using the Repository Pattern

**20.** **Introduction to Version Control Systems**

* Understanding GitHub and Azure DevOps
* Creating and managing repositories
* Code syncing, merging, conflict resolution
* On-premises Azure DevOps installation and access management

**21.** **Quick Project Development**

* Building a quick project (e.g., OLX-type or Shopping Cart-type)
* Integrating front-end templates and themes

**22.** **Managing Categories and Products**

* Categories and Product Management
* Images/File Upload with product and categories

**23.** **ASP.NET Core Identity: Users & Roles Management, Authentication & Authorization**

* Managing users, roles, and permissions
* Implementing role-based authentication and authorization in ASP.NET Core
* Understanding JWT Token and their benefits

**24.** **Implementing JWT Tokens, Password Resets, and Profile Updates**

* Building a customized login system from scratch
* Using Authorization Filters and Attributes
* Implementing JWT tokens for user management
* Adding functionalities for password resets and profile updates
* Introduction Single Sign-On (SSO)

**25.** **Working with Cookies and Sessions**

* Understanding cookies and sessions in web applications
* Best practices for managing sessions in ASP.NET Core
* Impact of application restart on Session Data
* Storing Session Data into database

**26.** **Introduction to Microsoft Blazor, Deployment & Updates**

* Understanding Blazor for building rich user interfaces
* Introduction to creating and consuming Web APIs using Blazor Web-Assembly and Blazor Server

**27.** **Deployment, Updates, Troubleshooting and logs**

* Managing Application in IIS
* Understanding Application Pools and pool isolation
* Hosting .Net and .Net Core sites
* Hosting Non-Native Applications like PHP or Python in IIS
* Troubleshooting and logs in ASP.Net Core

**28.** **Web Application Security**

* Understanding OWASP Top 10 security vulnerabilities
* Implementing best practices for securing ASP.NET Core applications