**6. Web Development**

**6.1 Introduction to Web Development**

* In C# ASP.NET, a web application refers to a dynamic and interactive software solution that incorporates server-side logic to process user requests and generate dynamic content.
* It typically follows a multi-tier architecture, involving separate layers for presentation, business logic, and data access.
* Web applications often have complex functionality, user authentication, database integration, and can provide services such as e-commerce, social networking, or productivity tools.
* They are built using frameworks like ASP.NET MVC or ASP.NET Core, and they often involve the use of server-side technologies such as C# for coding the logic.
* Key components :
  + **ASP.NET Core :**

ASP.NET Core is an open-source, cross-platform framework for building modern, cloud-based, and internet-connected applications. It's highly modular and allows developers to choose the components they need, making it more lightweight and flexible.

* + **MVC (Model-View-Controller) Architecture :**

ASP.NET Core follows the MVC architectural pattern, which separates the application into three main components: Model (data and business logic), View (user interface), and Controller (handles user input and manages communication between Model and View).

* + **Languages :**

These include C#, VB.NET and J#, as well as compilers.

* + **A base framework for processing web requests :**

As part of the ASP.NET framework, servers evaluate the code that web developers write with C# and send HTML to the user. Client-side code is written in JavaScript.

* + **Razor Pages and Views :**

Razor is a view engine that enables the creation of dynamic and expressive views in ASP.NET Core. Razor Pages provide a simpler page-based programming model, while Razor Views are used within the MVC framework for rendering HTML.

**6.2 Web API project**