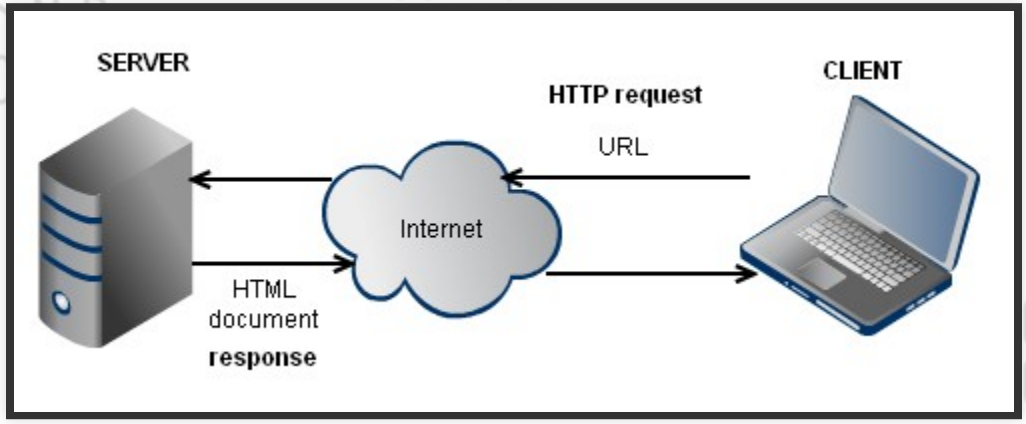
ASP.NET

INTRODUCTION TO ASP.NET

WHAT IS A DYNAMIC WEB APPLICATION?

- Contents of pages can change based on parameters.
- They run on application servers.
- Common technologies: : ASP.NET, JSP, php, Ruby on rails.

DYNAMIC WEB APPLICATIONS



WHAT IS ASP.NET?

- ASP stands for: Active Server Pages.
- ASP.NET is a server side web application framework that is used to develop dynamic web applications.

WHAT IS ASP.NET?

- First release was back in 2002. Current release is ASP.NET Core 2.0.
- Can be programmed using any .NET framework programming language.

ASP.NET EXTENSIONS

ASP.NET SUPPORTS MANY WEB TECHNOLOGIES AND EXTENSIONS SUCH AS:

- Web Forms
- MVC
- WebAPI
- Razor

RUNING ASP.NET APPLICATIONS

Running web applications requires a web server.

We will use Micorsoft IIS to host ASP.NET applications.

Visual Studio has IIS Express, which can help developers program ASP.NET web applications without setting up a full IIS.

ASP.NET MVC

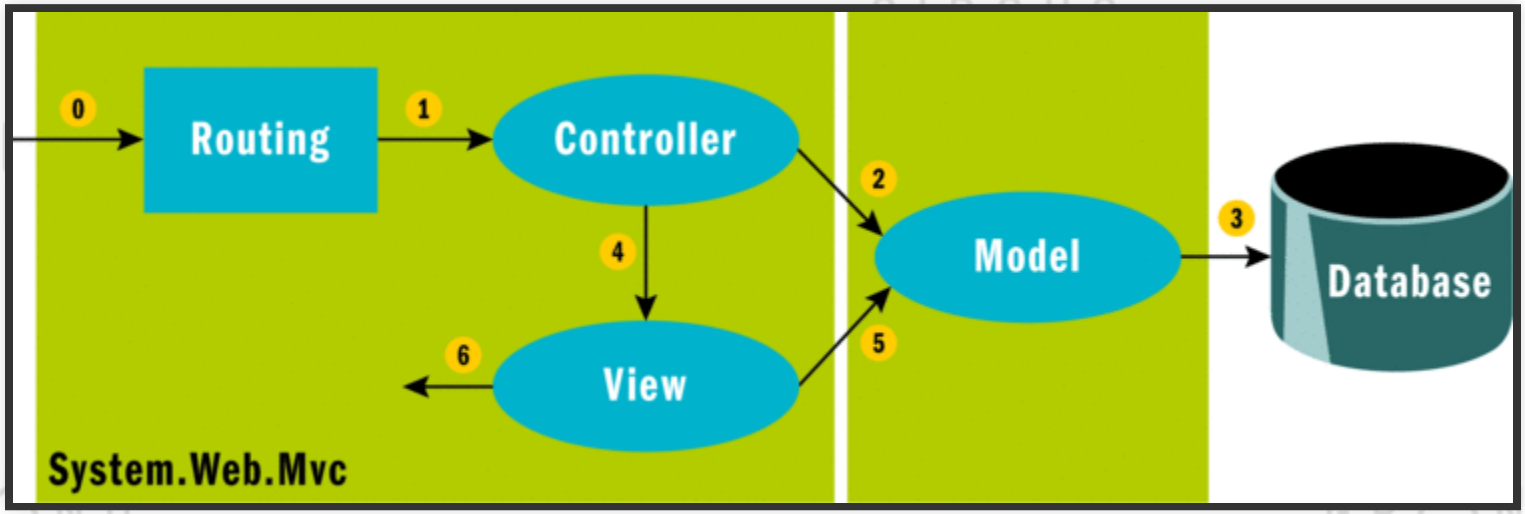
The ASP.NET MVC is ASP.NET's implementation of the MVC pattern.

The Model will implement the business layer.

The View will implement the display layer.

The Controller will implement the interactions and input control.

ASP.NET MVC ARCHITECTURE



WALK THROUGH

CREATE YOUR FIRST ASP.NET MVC APPLICATION!

ASP.NET MVC APPLICATION LIFE CYCLE

ROUTING

Routing is the first step in MVC request cycle.

The Routing engine looks in the Routing table to find matches for the requested URL.

When a match is found, the request is then sent to the corresponding IRouteHandler.

ASP.NET MVC APPLICATION LIFE CYCLE

ROUTING

The routing engine returns a 404 HTTP status code against that request if the patterns is not found in the Route Table.

ASP.NET MVC APPLICATION LIFE CYCLE

ROUTING

The routing engine returns a 404 HTTP status code if there are no matches.

ASP.NET MVC APPLICATION LIFE CYCLE

MVC HANDLER

The MvcHandler is where we will process the request.

MVC handler implements IHttpHandler interface.

ASP.NET MVC
APPLICATION LIFE CYCLE

CONTROLLER

Here, the MvcHandler will try to get a IController instance.

After getting an instance, the Execute method will be called.

ASP.NET MVC
APPLICATION LIFE CYCLE

ACTION EXECUTION

After creating the controller , the ActionInvoker chooses which action to invoke on the controller.

ASP.NET MVC APPLICATION LIFE CYCLE

VIEW RESULT

After getting the user input, the action method will prepare the appropriate response data, and then executes the result by returning a result type.

ASP.NET MVC APPLICATION LIFE CYCLE

VIEW RESULT

The result type can be ViewResult, RedirectToRouteResult, RedirectResult, ContentResult, JsonResult, FileResult, and EmptyResult.

ASP.NET MVC APPLICATION LIFE CYCLE

VIEW ENGINE

The IViewEngine selectes the appropriate View Engine to render the View Result.

ASP.NET MVC APPLICATION LIFE CYCLE

VIEW

The last step is to return string,a binary file or a Json data.

ASP.NET MVC PROJECT LAYOUT IN VISUAL STUDIO'S SOLUTION EXPLORER

Follow your instructor to go over the MVC project in Visual Studio