

ASP.NET MVC 5

Christen Zarif Foad

Course Prerequisites

- **Before attending this course, students must have:**
 - Experience with Visual Studio 2019.
 - Experience with C# programming, and concepts such as Lambda expressions, LINQ, and anonymous types.
 - Experience in using the .NET Framework.
 - Experience with HTML, CSS and JavaScript.
 - Experience with querying and manipulating data with ADO.NET.
 - Knowledge of XML and JSON data structures.

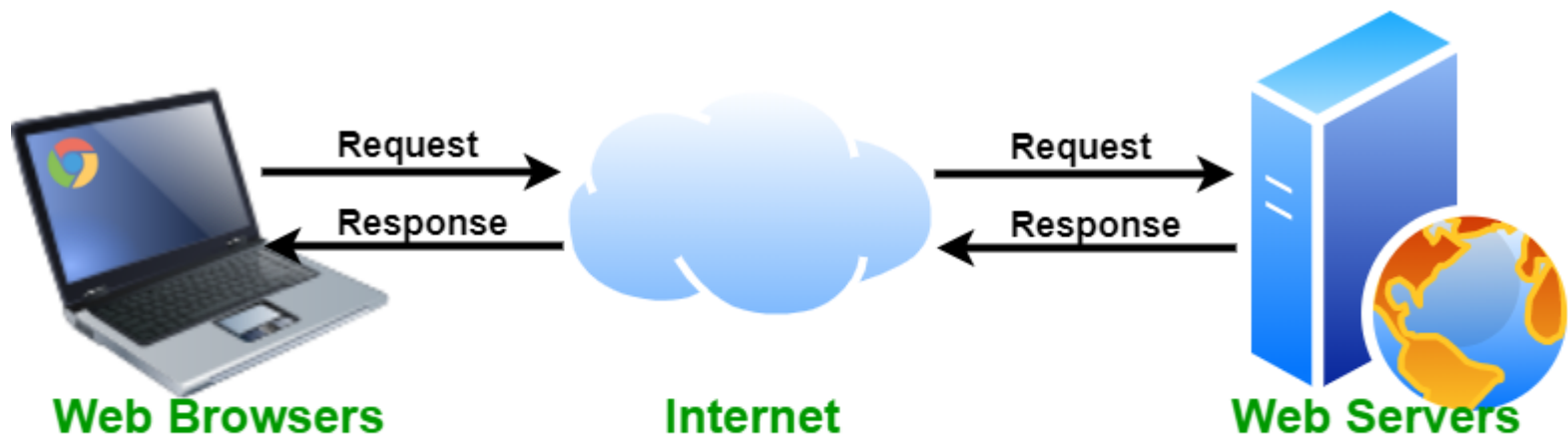
1. Different Between
Desktop Application ,
Web Application ?

2. Different Between
Web Server , Web
Application ?

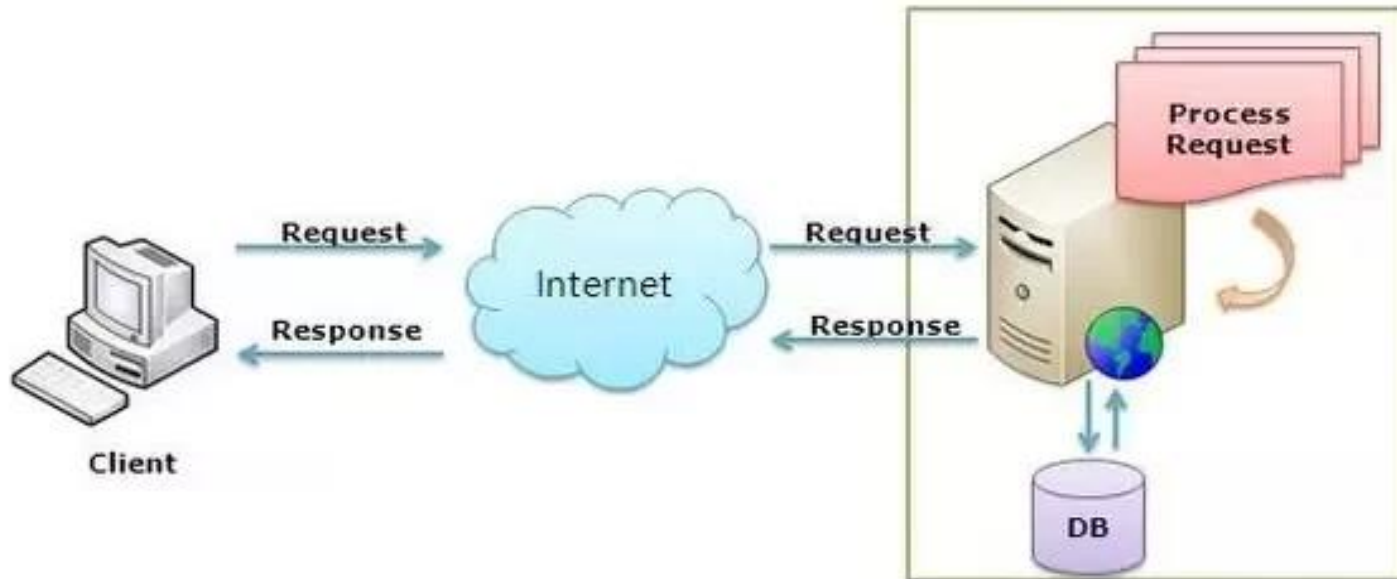


Web Server

- A web server is software and hardware that uses **HTTP** (Hypertext Transfer Protocol) and other protocols to respond to client requests made over the World Wide Web.
- The main job of a web server is to display website content through storing, processing and delivering webpages to users.



IIS



- **IIS (Internet Information Server)** is one of the most powerful web servers from Microsoft that is used to host your Web application.
- **IIS** has its own Process Engine to handle the request. So, when a request comes from client to server, IIS **takes that request** and process it and **send response** back to clients.

ASP.NET

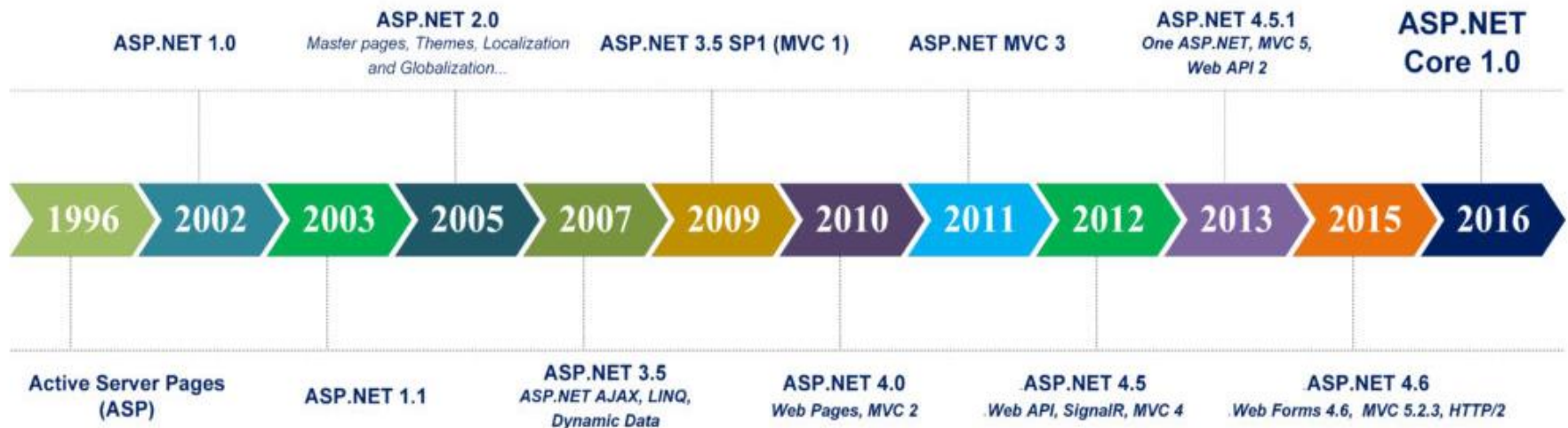
One ASP.NET

- **ASP.NET** is an open source **web framework**, created by Microsoft, for building modern **web apps** and **services** with .NET
- ASP.NET **extends** the .NET platform with tools and libraries specifically for **building web apps**.



- <https://dotnet.microsoft.com/learn/aspnet>

Asp.net History



Introduction to MVC Design Patterns?

- A design pattern is a formal way of documenting a solution to a design problem in a particular field of expertise. Each pattern describes a problem that occurs over and over again in our environment, and then describes the core of the solution to it.
- The Model-View-Controller design pattern solves the interdependencies between data access code, business logic code, and presentation code by decoupling them. High coupling can cause strong ripple effects whenever a change is made anywhere

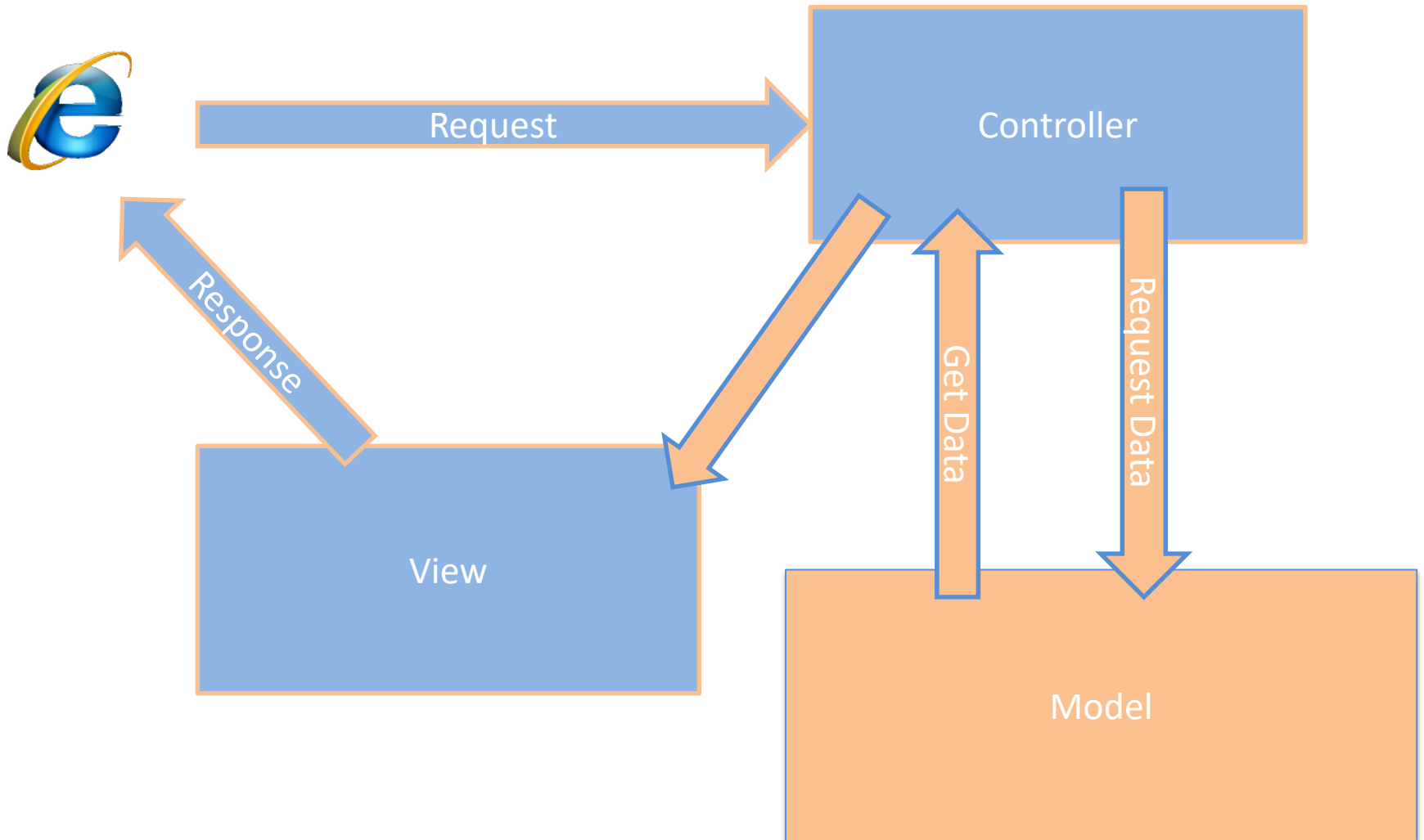
Asp.net MVC Framework

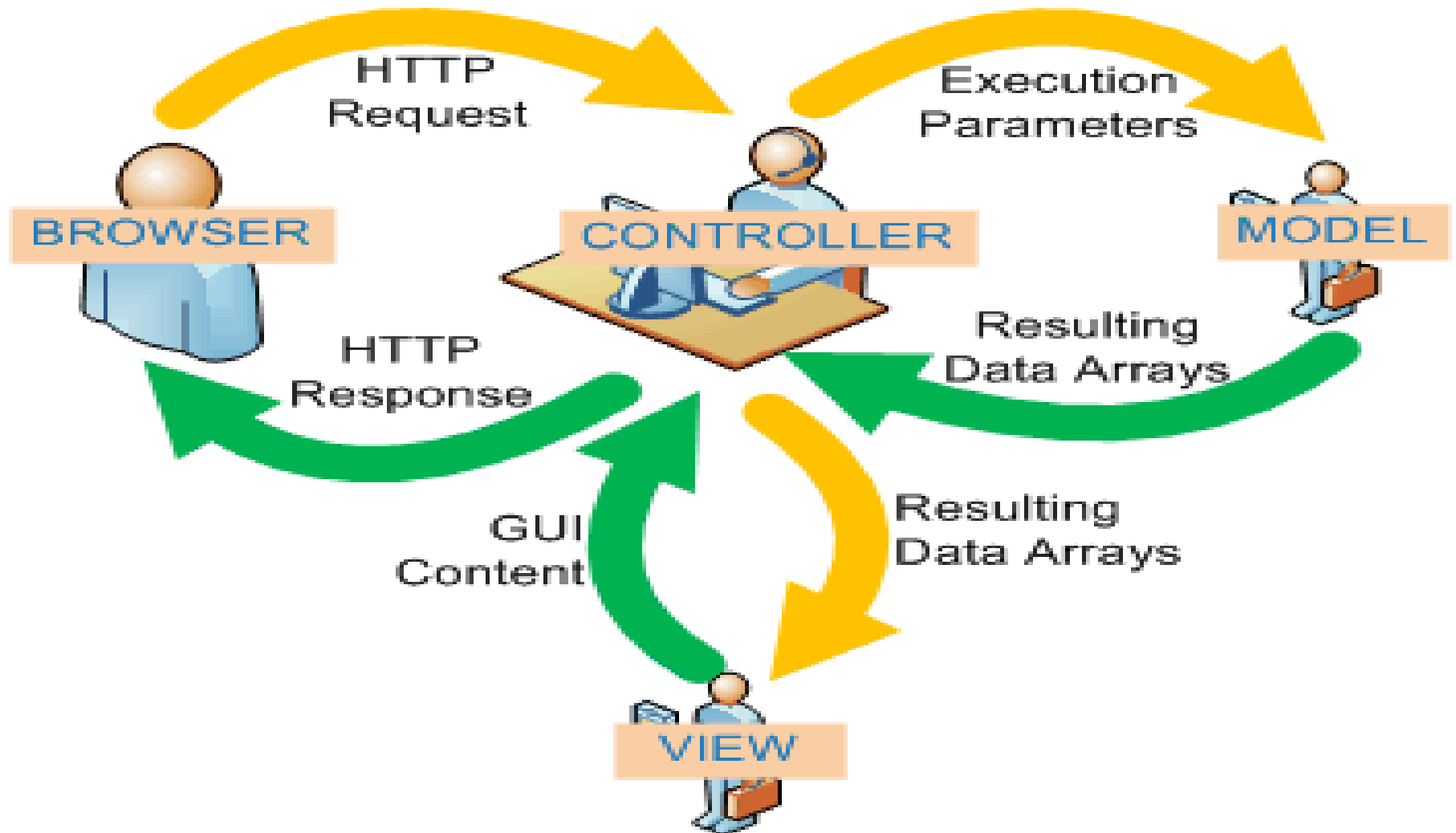
- Is a web application framework that **implements the model-view-controller pattern.**
- An **alternative** to ASP .NET Web Forms
- Highly testable
- Integrated with the existing ASP .NET features:
 - Master pages
 - Membership-Based
 - Authentication
- defined in the **Microsoft.AspNetCore.Mvc** namespace.

Features of ASP.NET MVC Framework

- *Separation* of application logic which makes testing easier
- *Powerful URL-mapping / Clean URL* :component that lets you build applications that have comprehensible and searchable URLs. URLs do not have to include file-name extensions MVC provides different routing techniques that do not depend on file systems but Controllers. These URLs are easy to perform SEO..
- Using *Razor* as a view Engine

MVC Architecture





MVC App Execution 'Stages'

- Receive first request for the application
 - Populating RouteTable
 - Perform routing
 - Create MVC Request handler
 - Create controller
 - Execute controller
 - Invoke action
 - Execute result
 - ViewResult, RedirectToRouteResult, ContentResult, FileResult, JsonResult, RedirectResult
-

URL Mapping

- `http://host:port/Student/find/100`

0 references

```
public class StudentController : Controller
```

```
{
```

0 references

```
public IActionResult Find(int id)
```

```
{
```

```
    return View();
```

```
}
```

```
}
```

Recursos ASP .NET MVC

- Demo

<http://nerddinner.codeplex.com/>

- Video introductorio

<http://channel9.msdn.com/posts/matthijs/ASPNET-MVC-2-Basics-Introduction-by-Scott-Hanselman/>

**Different developers and different projects have different needs.
If ASP.NET MVC meets your needs, use it. If it doesn't, don't use it.
Either way, don't be afraid**

Thank You

- Microsoft Tutorial:
 - <https://dotnet.microsoft.com/apps/aspnet>
 - <https://docs.microsoft.com/en-us/aspnet/mvc/>
 - <https://www.asp.net/mvc>
- Introduction into mvc
 - <https://app.pluralsight.com/player?author=scott-allen&name=mvc3-building-intro&mode=live&clip=0&course=aspdotnet-mvc3-intro>
- Advanced Topics
 - <https://app.pluralsight.com/player?author=scott-allen&name=aspdotnet-mvc5-fundamentals-m1-introduction&mode=live&clip=0&course=aspdotnet-mvc5-fundamentals>