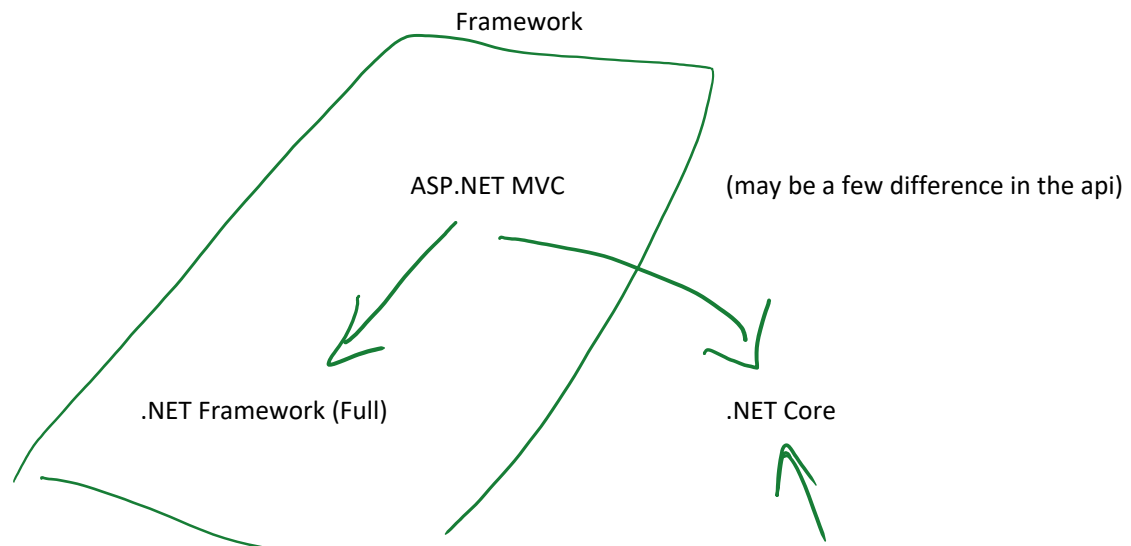# Agenda

ASP.NET MVC <--- Application Framework <---- Helps you develop the application

.NET Core Application <----- Runtime Framework/Platform <----- helps you execute the application
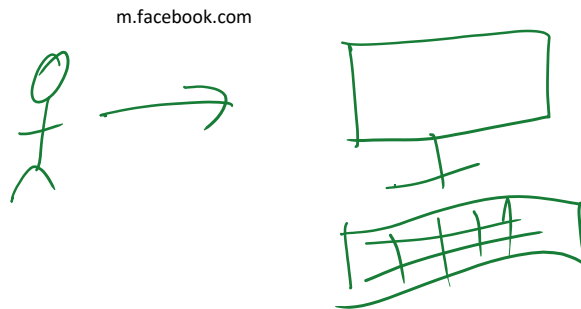
Framework

ASP.NET MVC

(may be a few difference in the api)

.NET Framework (Full)

.NET Core

Http Protocol

http://m.facebook.com <---- **Open Mobile Site**

http://www.irctc.co.in/mobile

GET m.facebook.com/ \r\n
User-Agent: chrome, windows10\r\n

m.facebook.com

It is a contradiction between
the URL and the User-Agent

Url --> give me mobile site
User-Agent --> give me desktiop site

- Request to keep the connection alive
- Don't close the Tcp socket (Please)
- Browsers almost always send this header to the client
- Server can (and very often does) ignore this request
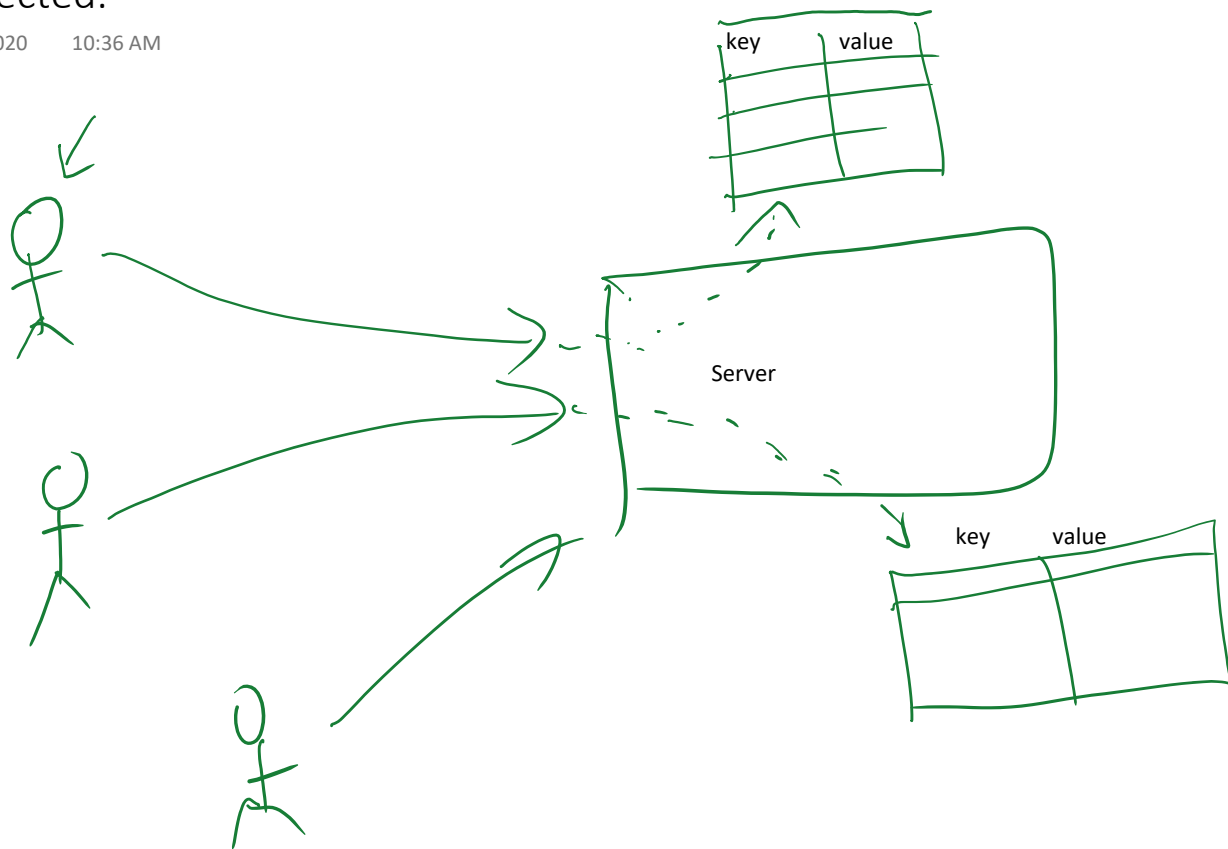
GET /some/url
connection: keep-alive

https://books.org/list?cat=thriller

https://amazon.in/proucts?q=mobile-cover&model=samung-note-8

Server Response

200 OK
Content-type:text/html
date-modified:2020/04/13

Clients second request

How will server connect a user to its session when socket is disconnected.

Server

key | value

key | value

Cache Redirect

Server Response

200 OK
Content-type:text/html
date-modified:2020/04/13

Client Next Response

GET /resource
if-modified-since:2020/01/30

//content changed after clients previous visit

200 OK
Content-type:text/html
date-modified:2020/04/13

Gets new Data

Client Next Response

GET /resource
if-modified-since:2020/05/04

//content not modifed after the last visit

304 Not Modifed   Cache Redirect
\r\n

Can use the existing

MVC

Presentation   Business   Data

View   Controller   Model

Model

Standard Network Port

As an admin I can run any server on any available (free) port.

One Machine ---> One Port ---> One App (One socket)

Standard Practice

First 1K port is reserved for standard protocol

- 20,21 --->FTP
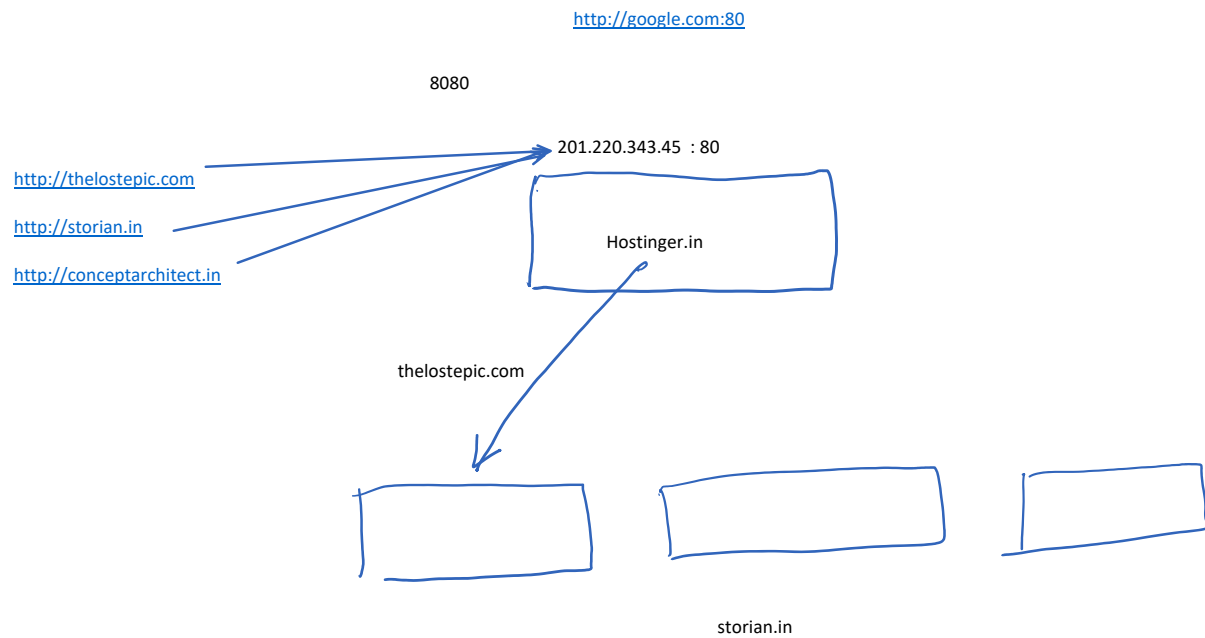- 25 ---> SMPT
- 80 ---> HTTP
- 110 ---> POP
- 443 ---> HTTPS

Q. What if I run HTTP Server on a Non Standard Port

A. The URL Will Change
     a. http://books.org:3393/books

- now we say the server will be available on paort 3393.

- You can imagine that default url is a shortform for
   ○ http://books.org:80/books
   ○ http://books.org:445/books

http://google.com:80

8080

201.220.343.45 : 80

http://thelostepic.com

http://storian.in

http://conceptarchitect.in

Hostinger.in

thelostepic.com

storian.in

MVC URL

Traditional View

http://localhost:57586/   <------ index.html/default.html/default.aspx/default.php ---> from root directory

http://localhost:57586/Home/Contact <----- index.html/default.html/default.aspx from /Home/Contact directory

http://localhost:57586/Home/About

http://localhost:57586/books.html <----- request for books.html file in root directory

http://localhost:57586/Home/About/authors.aspx <---- execute authors.aspx page from /Home/About folder

http://localhost:57586/

How Fiddler Works

Tuesday, May 12, 2020   10:41 AM

fiddler

Browser → Server

Browser ← Server
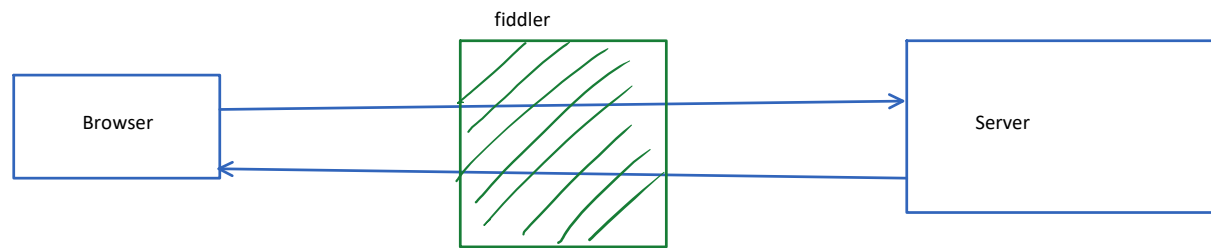
Controller--->Action--->ActionResult

1. An Url is a request for a **Controller** to perform some **Action**
2. Once an Action is performed it returns an **ActionResult**
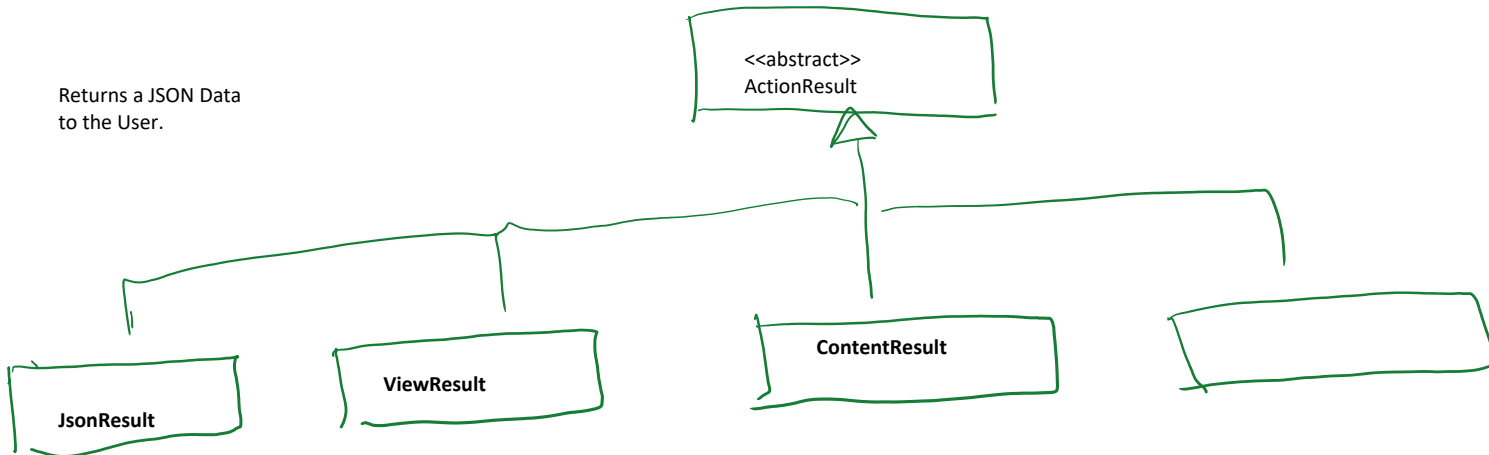3. ActionResult is returned to the User As a **View**

Controller ----> is an object
Action ----> is what controller do

ActionResult ---> return of the Action

View ---> what user sees (ActionResult)

Returns a JSON Data
to the User.

```
           <<abstract>>
           ActionResult
```

JsonResult   ViewResult   **ContentResult**

ViewResult

ViewResult uses a ViewEngine
to generate a dynamic Html View
using Model Data and a ViewTemplate

ContentResult

One of the simplest ActionResult
It returns a given String content to the user
without any processing.

If your **Action** is not returning an **ActionResult**
The current object is autmatically converted to
ContentResult by the controller

A code like

```
public Person Contact()
{
    var p=new Person();
   return p;
}
```

Is internally converted to (psudocode)

```
public ContentResult Contact(){
      var p=new Person();
      return new ContentResult()
      {
         Content=p.ToString()
      };
}
```
This happens with the base Controller

Razor view engine processing

Razor is one of the simplest view engine to combine view template (HTML) with C# Code (**CS+HTML = CSHTML**)

```
<h2>Welcome To Philips Server</h2>
@{
    //this is a c# code block. you can write any c# here
    var date = DateTime.Now;
}
<p><strong>Date is </strong>@date.ToLongDateString()</p>
<p><strong>Time is </strong>@date.ToLongTimeString()</p>
```

Razor Block Code

```
@{
//razor block
}
```

You can write any processing statement, assignments etc in this block. This block doesn't have direct output on the screen
 unless you write Response.Write()

Razor Display Expression

@something

It is a shortcut for

@{ Response.Write(something); }

Notice there is no semicolon after simple razor expression
what ever you type automatically used as argument to Response.Write()

Also Note @is automatically closed when it finds html code