# .Net Web Developer Essentials – Cheat Sheet

## Http & IIS

### Request

|  |  |
| --- | --- |
| GET http:// simple.training.local/ HTTP/1.1 | Http Method (GET/POST) – Url – HTTP Version |
| Host: simple.training.local | The address of the server (for DNS) |
| Connection: keep-alive | Connection Preference |
| Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,\*/\*;q=0.8 | Content types the client can handle |
| User-Agent: Mozilla/5.0 (Windows NT 6.1) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/30.0.1599.69 Safari/537.36 | The type and version of the client |
| Accept-Encoding: gzip,deflate,sdch | The encoding the client can handle |
| Accept-Language: en-US,en;q=0.8,en-GB;q=0.6 | The languages preferred by the client |

### Response

|  |  |
| --- | --- |
| HTTP/1.1 200 OK | HTTP Version and Status |
| Server: ASP.NET Development Server/10.0.0.0 | Server name |
| Date: Tue, 08 Oct 2013 11:16:42 GMT | Date the response was sent (used for caching) |
| X-AspNet-Version: 4.0.30319 | ASP.Net version |
| Cache-Control: private | Recommended caching protocol |
| Content-Type: text/html | Type of response |
| Content-Length: 1116 | Length of the response |
| Connection: Close | Preferred connection handling once complete |

### Common Response Statuses

|  |  |
| --- | --- |
| 200 OK | The request was successfully processed |
| 404 Not Found | The url of the request does not have a resource |
| 301 Moved Permanently | The resource has been moved permanently (handy for SEO) |
| 302 Moved Temporarily | The resource has been move temporarily |
| 5xx Error | There has been an error |
| 418 I’m a teapot | April Fools Joke – but real |

### Fiddler

Displays HTTP traffic on your local machine.

Download from <http://fiddler2.com/>

### .Net Application Process

.Net Applications live inside an application pool (defined in IIS). Application pools display in process explorer as w3wp.exe

### Hosts File

The Hosts file on your computer bypasses DNS to apply local only domain -> IP mapping

Location: C:\Windows\System32\drivers\etc\hosts

Example Entry

127.0.0.1 simple.training.local

## ASP.Net Pipeline

### HttpModules

* Execute as part of the processing of the HTTP Request
* Implement IHttpModule interface
* Enabled in web.config
* Hook into specific events of the HTTP Processing
  + Start & End
  + Authentication
  + Cache Processing

### HttpHandlers

* Process the specific request
* Implement IHttpHandler
* Enabled in web.config to handle a specific path

### WebForms

#### ASPX page Lifecycle

|  |  |
| --- | --- |
| Start | Sets IsPostback |
| Initialisation | Create controls and Control Tree |
| Load | Viewstate is read and applied |
| Postback and Events | Control events fire |
| Rendering | Viewstate is saved and Render is called on each control to build up HTML response |
| Unload | Finish |

#### ASPX Lifecycle Events

* PreInit, Init, InitComplete
* PreLoad, Load,LoadComplete
* PreRender, PreRenderComplete
* SaveStateComplete
* Unload

### MVC

#### Routing

* http://{domain}/{Controller}/{Action}/{params}
  + Controller = Class
  + Action = Method
* http://{domain}/Demo/Simple/12
  + Controller = Controllers/DemoController.cs
  + Action = public ActionResult Simple(int id)
  + View = Views/Home/About.cshtml
* Defined in Global.asax

## Visual Studio

### Useful Keyboard Shortcuts

|  |  |
| --- | --- |
| Ctrl+C, Ctrl+X, Ctrl+V | Copy, Cut, Paste |
| Ctrl+Shift+B or F6 | Build Solution |
| F5 | Debug |
| Ctrl+F5 | Run without Debug (faster) |
| Shift+Ctrl+F | Advanced Find |

### Common Web.config nodes

|  |  |
| --- | --- |
| configSections | Define xml structures in the web.config |
| connectionStrings | Database connection string for current environment |
| appSettings | Config values read at run time |
| customErrors | Sets the type of error seen by the user |

## Source Control

* Trunk
  + Is where the core code is
  + Ideally should match be the code currently live
* Branch
  + Copy of the trunk to make changes on
  + Usually merged into the trunk once complete
* Tag
  + A point in time we might want to remember (e.g. the version that went live)

### Files that shouldn’t be in Source Control

* \*.suo – per user information
* \*.user – per user information
* Bin – re-built on compile
* Obj - re-built on compile

## Coding best practice

### Uncle Bob’s Solid

<http://butunclebob.com/ArticleS.UncleBob.PrinciplesOfOod>

* Single Responsibility Principle
* Open Closed Principle
* Liskov Substitution Principle
* Interface Segregation Principle
* Dependency Inversion