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GETTING STARTED WITH ASP.NET MVC

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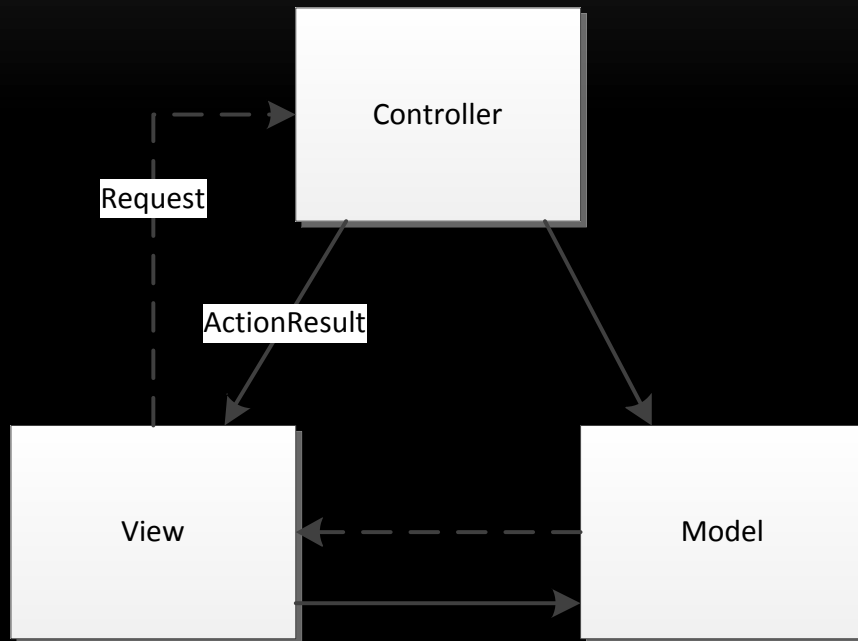


WHO AM I?

- Patterns & Practices Evangelist, Telerik, Inc.
- Microsoft MVP, MCSD, MCDBA, CSM, CSP
- Developer().Speaker().Writer()
- Lead Director, Cincinnati .NET User's Group
- Founder, Agile Conferences, Inc.
- Columnist, Developer.com



WHY ASP.NET MVC?



- Full Control over HTML and URLs
 - Allows multiple HTML Forms (Yay!)
- Separation of Concerns
- Extensible
- Testable
- Convention over Configuration
- Dependency Injection Support



WHAT'S NOT IN MVC



- Pages/CodeBehind
- Postbacks/Viewstate
- Page/Event Lifecycle
- “Classic” server controls



WHAT'S STILL THERE?

- IIS
- WebFormsViewEngine
 - Master pages
- HTTPHeaders and HTTPModules
- Tracing, Debugging, Health Monitoring
- State Management
 - Caching
 - Session State
 - Cookies
 - Request Storage
- Site Maps
- Personalization and Localization



RUNNING IN VISUAL STUDIO

Start Action

Current Page

Specific Page

Start external program

Command line arguments

Working directory

Start URL

Don't open a page. Wait for a request from an external application.

Servers

Apply server settings to all users (store in project file)

Use Visual Studio Development Server

Auto-assign Port

Specific port: 1135

Virtual path: /

NTLM Authentication

Use Local IIS Web server

Use IIS Express

Project Url: <http://localhost:1135/> Create Virtual Directory

- Set to Specific Page
 - Leave it blank
- Use IIS Express
 - More inline with IIS
- Change Default Browser



CONVENTION OVER CONFIGURATION

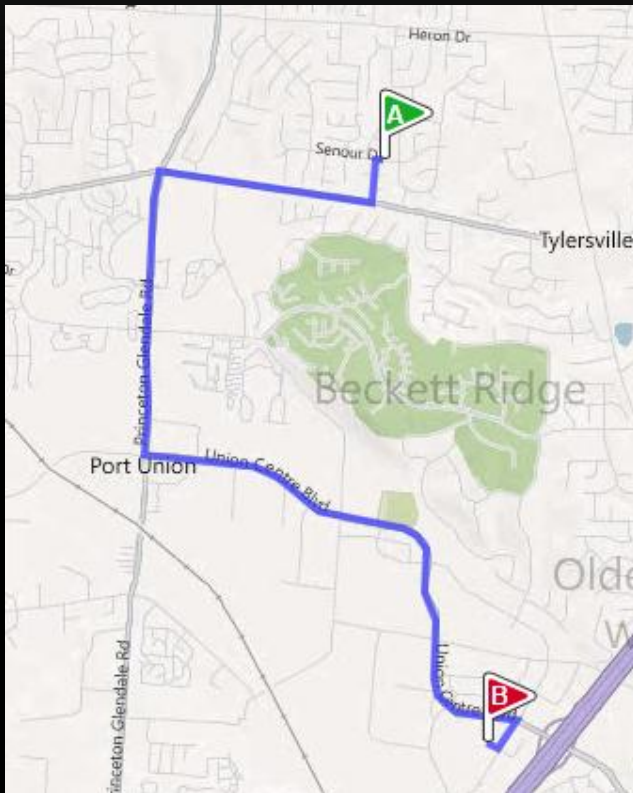
```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<!-- This XML document was generated by RCCOB.XML -->
<SOAP-ENV:Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap"
  xmlns:uk="http://www.greenwichmeantime.co.uk"
  xmlns:com="http://www.easternstandardtime.com">
  <SOAP-ENV:Body>
    <TRAIN Date="18/03/2003" Time="13:00">
      <LOCOMOTIVE>
        <Name>Thomas</Name>
        <Length>12,000.00</Length>
        <Weight>3,400</Weight>
      </LOCOMOTIVE>
      <CARRIAGE>
        <Name>Annie</Name>
        <Length>10,000.00</Length>
        <Weight>2,000</Weight>
        <Other_Information>
          Room for
          <count>100</count>
          standing & seated
        </Other_Information>
      </CARRIAGE>
      <CARRIAGE>
        <Name>Clarabel</Name>
        <Length>12,500.00</Length>
        <Weight />
      </CARRIAGE>
    </TRAIN>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
</TRAINDOC>
```

Config.xml

- Controllers
 - *<name>*Controller
- Views
 - Named for Action
 - Placed in */Views/<ControllerName>*
- Layouts
 - Start with “_”
- Project Structure



ROUTING



- Added to Web Forms in ASP.NET 4
- Directs Incoming URLs to correct Controller/Actions
- Creates Outgoing URLs
- SEO Optimized



MODELS



- The data of the application
- Supports
 - Data Annotations
 - Additional Metadata



VIEW MODEL



- Façade for individual models
- Transport mechanism for models



CONTROLLERS



- Process Incoming requests
- Perform changes to the model
- Select views to render to the user



ACTIONS



- Methods of a controller
 - Each Exposed by unique URLs
- Return an ActionResult
 - View, Redirect, Json, etc.



ACTION FILTERS



- Authorization
- Action
- Result
- Exception



CHILD ACTIONS



- Invoked from a View
 - Similar to Partial Views
- Encapsulates controller logic



MODEL BINDING



- Reconstitutes form values into target object
- Runs validations



VIEWS



- Strongly Types
- Accepts Interactions from User
- Returns results of interactions back to user



VIEW LAYOUTS



- Similar to Master Pages
- `@RenderBody()`
 - Renders view
- Supports Sections



PARTIAL VIEWS



- Strongly typed
- Building blocks for complex views
- Increase code re-use
 - DRY



PASSING DATA TO THE VIEW



- ViewData
- ViewBag
 - New in MVC3
- TempData



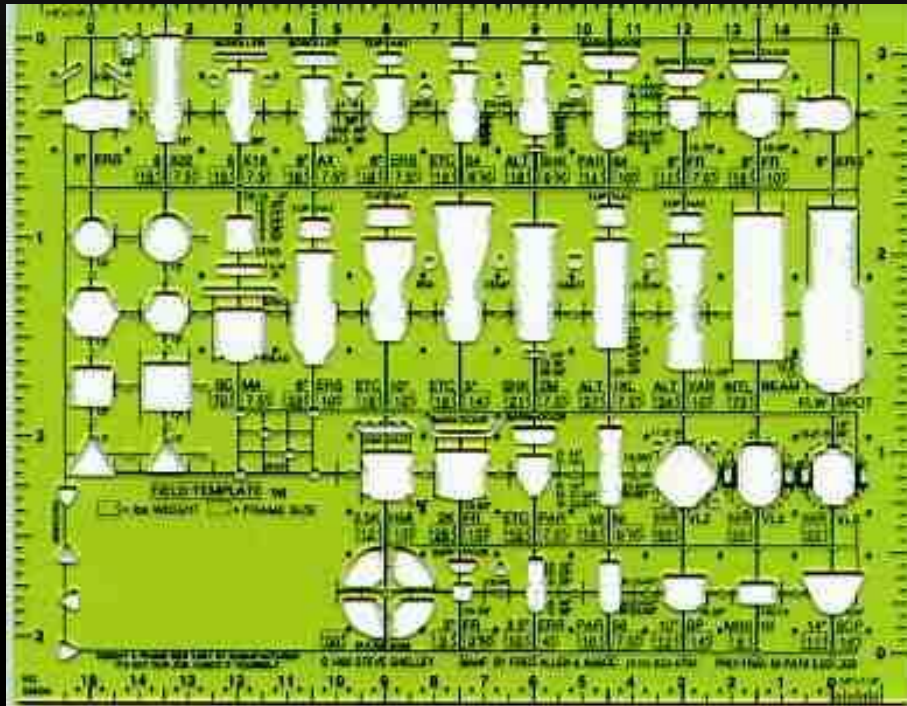
AJAX AND JSON



- AJAX:
 - One line of code
 - Beware IE caching
- Json
 - Return JsonResult
 - Must Explicitly Allow Get



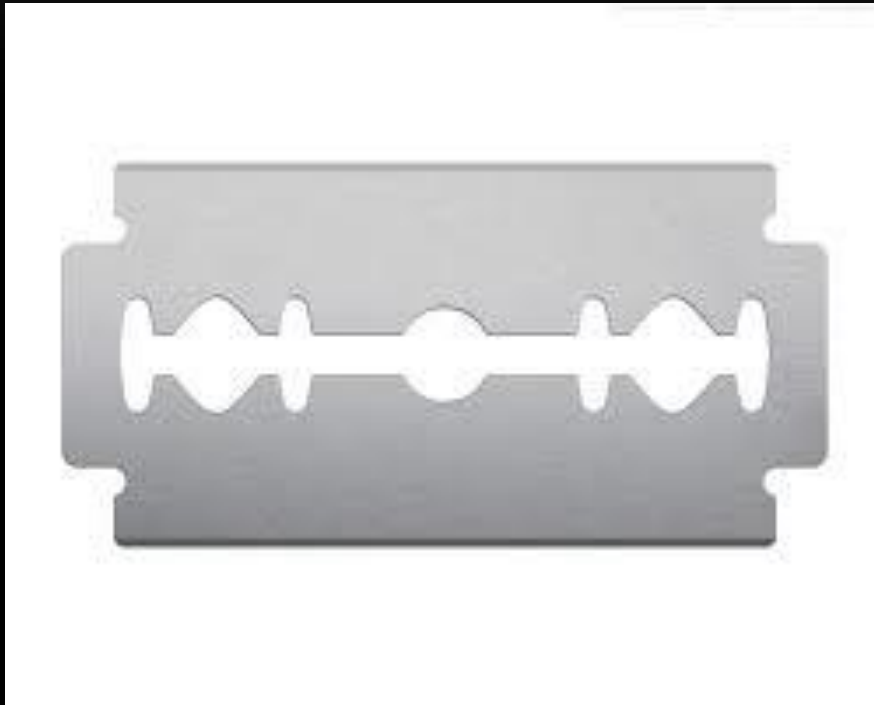
HTML HELPERS AND TEMPLATES



- Helpers
 - Extensions to Html
- Templates
 - DisplayForModel || EditorForModel
 - DisplayFor || EditorFor



RAZOR VIEW ENGINE



- Greatly reduces typing
- Mixes HTML and Code cleanly
 - Increases readability
- Compiled at runtime
- WebForms and Razor both enabled by default



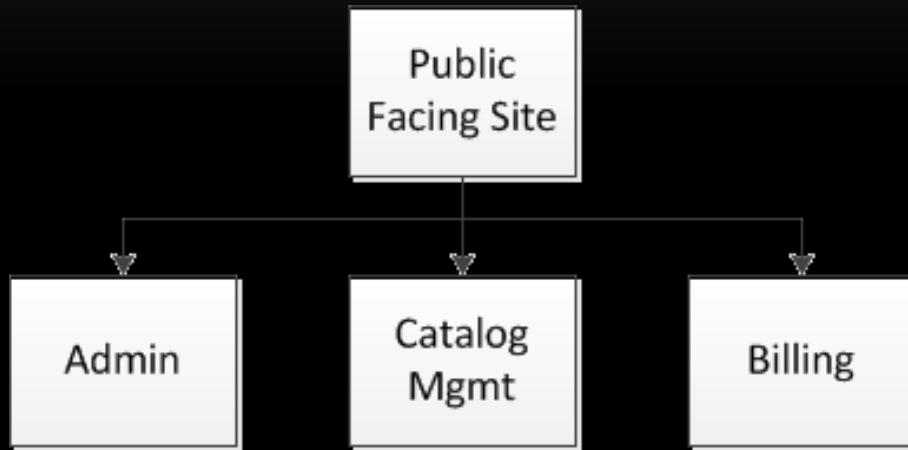
DEPENDENCY INJECTION



- Depend on abstractions when beneficial
- Use IOC container
- Create DefaultControllerFactory



AREAS



- Functional Segments of application
- Enhance Separation of Controls
- Fully supported by routing system
 - Add namespace to routing



RESOURCES

- Telerik Extensions for ASP.NET MVC:
 - <http://www.telerik.com/community/download-free-products.aspx>
- ASP.NET MVC2 In Action:
 - <http://www.manning.com/palermo2/>
- ASP.NET MVC3 In Action:
 - <http://www.manning.com/palermo3/>
- Pro ASP.NET MVC 3 Framework
 - <http://www.apress.com/book/view/1430234040>



CONTACT ME

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