

DO'S AND DON'TS OF ASP.NET MVC

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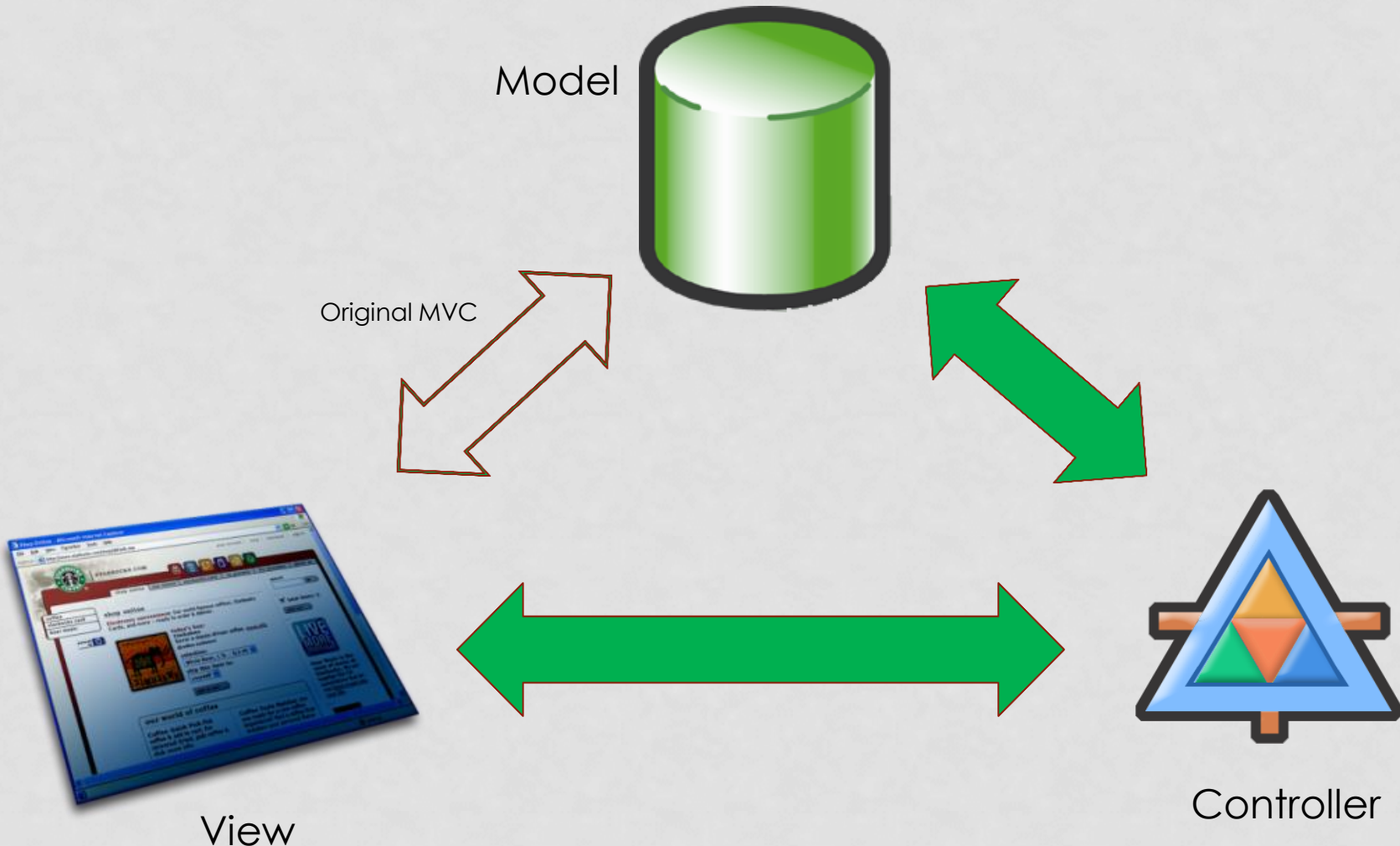


32MINUTOS.NET

...el podcast sobre desarrollo que dura 30 minutos.

MVC ARCHITECTURE

Model View Controller



Separation of Concerns

```
[Authorize(Roles = "User")]
public virtual ActionResult Grid()
{
    var measurementTypes = _measurementTypeProvider.MeasurementTypes(CurrentAccount);
    var columnHeaderBuilder = new StringBuilder("Actions', 'Date' ");
    var columnModelBuilder =
        new StringBuilder(
            "{ name: 'Actions', index:'Actions', width:75, sortable:false }, { name: 'Date', index: 'Date', align: 'left' }");
    foreach(var type in measurementTypes)
    {
        columnHeaderBuilder.Append(", ");
        columnHeaderBuilder.Append(type.Description);
        columnHeaderBuilder.Append("");

        var name = String.Format("m{0}", type.MeasurementTypeId);
        columnModelBuilder.Append(", { name: ''");
        columnModelBuilder.Append(name);
        columnModelBuilder.Append(", index: ''");
        columnModelBuilder.Append(name);
        columnModelBuilder.Append(", align: 'right' }");
    }

    ViewData.Model = new GridPayload
    {
        ColumnHeaders = columnHeaderBuilder.ToString(),
        ColumnModel = columnModelBuilder.ToString()
    };

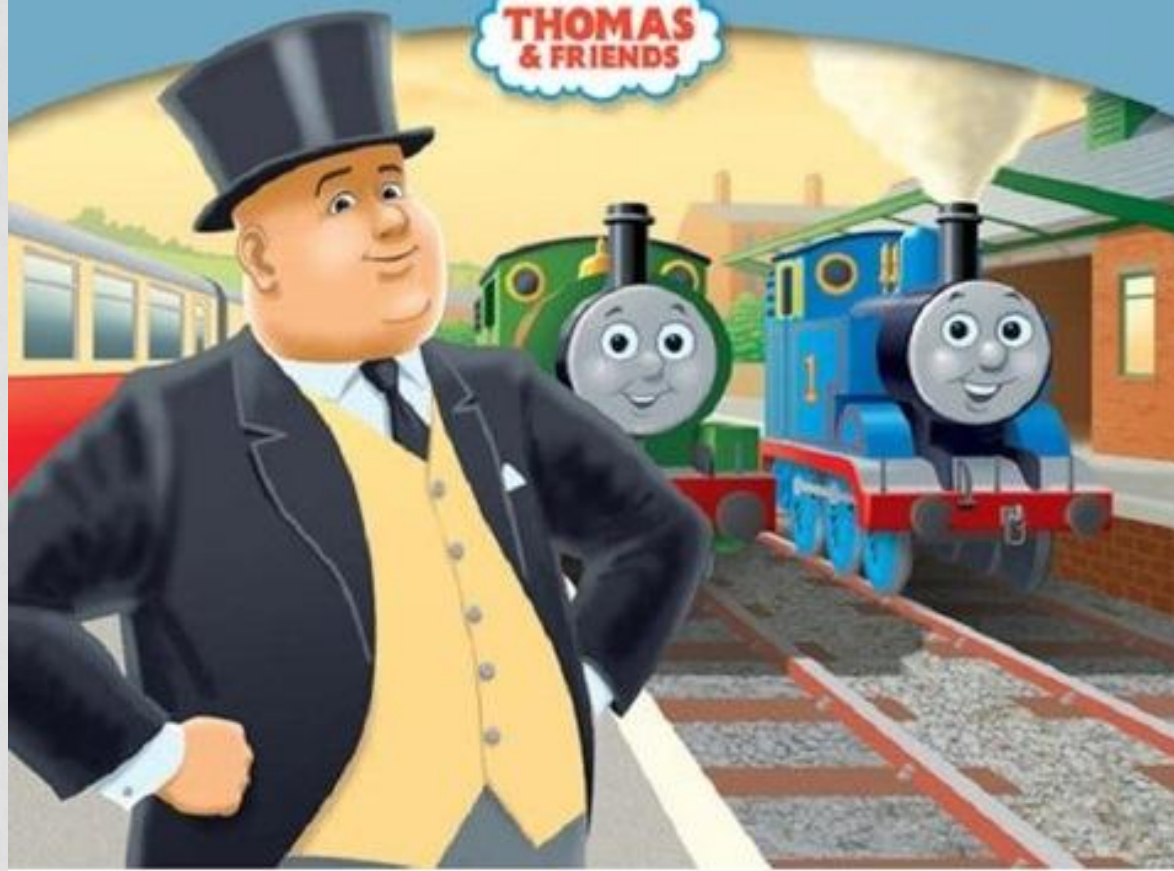
    return View();
}

[Authorize(Roles = "User")]
public virtual ActionResult GridData(string sidx, string sord, int page, int rows)
{
    var pageIndex = Convert.ToInt32(page) - 1;
    var pageSize = rows;
    var totalRecords = _bodyProvider.TotalBodiesForAccount(CurrentAccount);
    var totalPages = (int)Math.Ceiling(totalRecords / (float)pageSize);
    var bodies = _bodyProvider.BodiesForAccount(CurrentAccount, pageIndex * pageSize, pageSize);
    var measurementTypes = _measurementTypeProvider.MeasurementTypes(CurrentAccount);

    var jsonData = new
    {
        total = totalPages,
        page,
        records = totalRecords,
    };
}
```

The Fat Controller

THOMAS
& FRIENDS



SRP

PostsController.cs 8.5 KB

```
[Authorize]
[ActionName("Edit"), AcceptVerbs("POST")]
[ValidateInput(false)]
public ActionResult SaveEdit(int id, string title, string author, string description, string body, string tags)
{
    //as this method needs authorization, all the comments should be loaded
    YABE.Models.Post p = pd.GetPostByIdWithUnApprovedComments(id);
    List<Models.Tag> tagList = new List<YABE.Models.Tag>();

    p.Author = author;
    p.Title = title;
    p.Description = description;
    p.Body = body;
    p.Modified = DateTime.Now;
    p.IsPublic = true;
    p.ShowOnFrontPage = true;
    p.AllowComments = true;
    p.PostTags.Clear();

    if (tags != null && tags.Trim().Length > 0)
    {
        tagList = Models.TagDL.AddTags(tags.Split(','));
    }

    try
    {
        List<RuleViolation> issues = p.GetRuleViolations();
        if(issues.Count>0)
        {
            throw new BLValidationException(issues);
        }
        this.pd.UpdatePost(p, tagList);
        //now we have check the comments
        //TODO: Implement check approval
    }
    catch(BLValidationException err)
    {
        TempData["Message"] = "Post update problem occurred.";
        foreach(var issue in err.issues)
        {
            ViewData.ModelState.AddModelError( issue.PropertyName
                ,issue.ErrorMessage);
        }
        return View("Edit", ThemeEngine.AdminMasterPage, pd.GetPostByIdWithUnApprovedComments(id));
    }
}
```

Do we need a Controller?

Creating Decoupled Architectures

Dependency Injection

DEMO

IOC

Aspect Oriented Programming

AOP

- Attributes
- Interceptors
- Global Filters

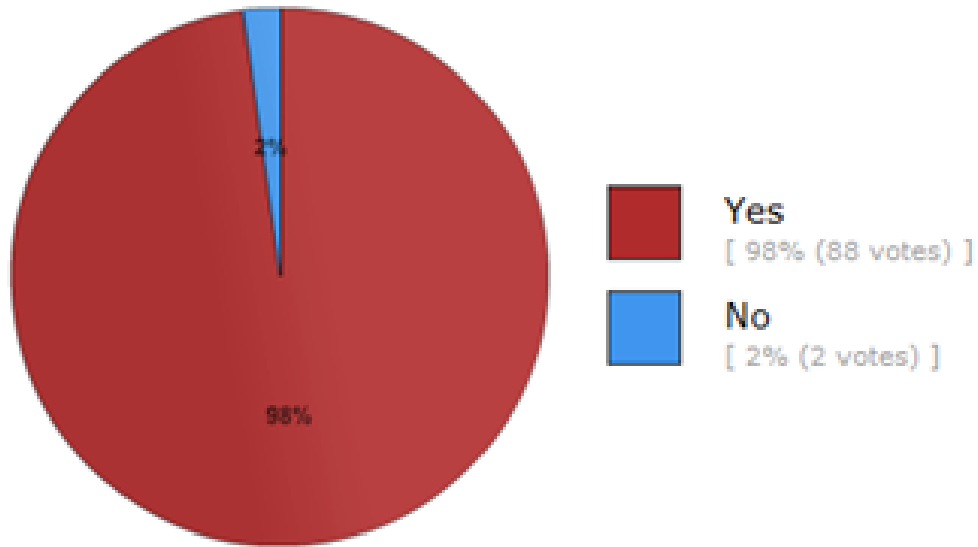
DEMO

ACTION FILTERS / UNKNOWN RECORD /
AUTOVIEWHANDLE

The Model

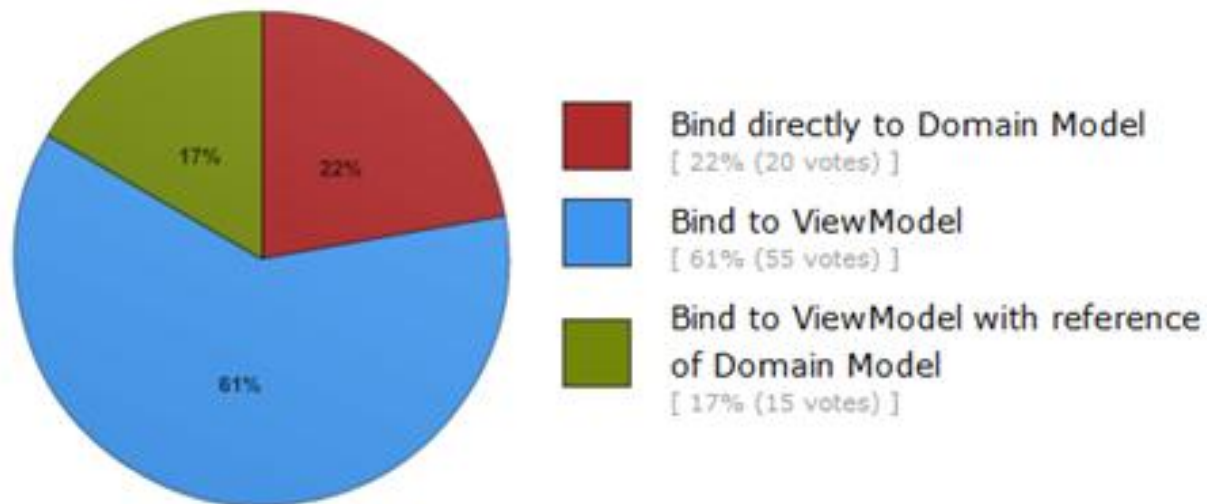
1- Do you use Strongly-Typed Views

Total: 90 votes



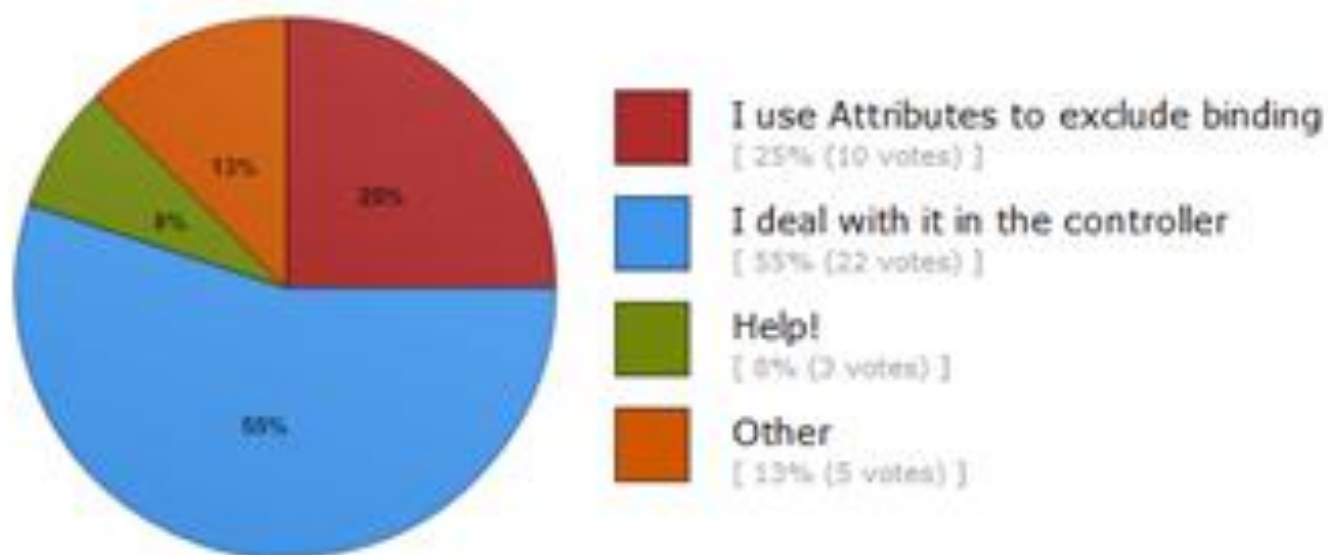
2- If you answered Yes to previous question, do you...

Total: 90 votes



3- If you bind to Domain Model, how do you handle partial updates?

Total: 40 votes



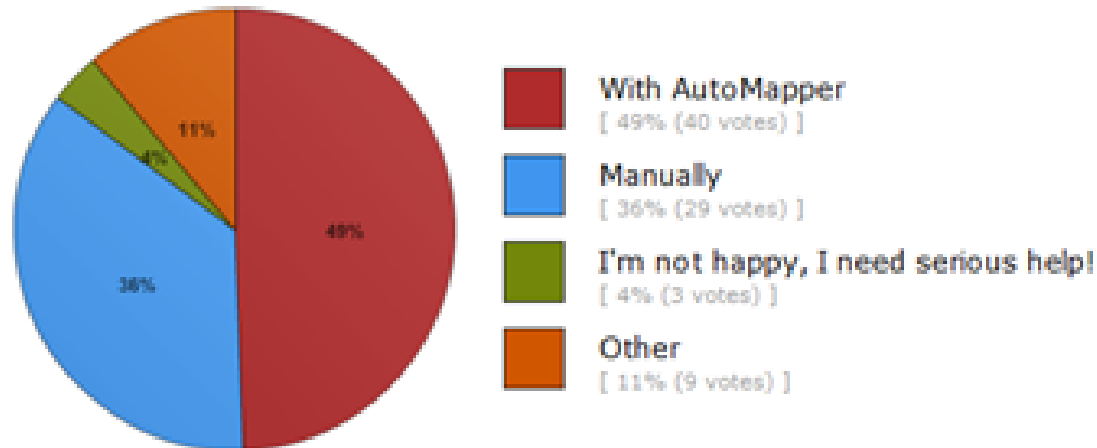
Interface TryUpdateModel

Partial updates of what?

orm != partial updates

5- If you use ViewModels, how do you handle mappings?

Total: 81 votes



AutoMapper when possible, manually otherwise

Model properties are Entity Framework data objects

Automapper + manual

i dont use it

bitoolkit

Expressions

Automapper and Manually (linq projections)

TryUpdateModel

CQRS

Hide (9) +

ViewBag / Domain Model / View Model

View Models

```
public class Customer
{
    public string FirstName { get; set; }
    public string LastName { get; set; }
    public string Company { get; set; }
    public IList<Invoice> Invoices { get; set; }
}
```

```
public class CustomerEditViewModel
{
    public string FirstName { get; set; }
    public string LastName { get; set; }

    public IList<Country> ListOfCountries { get; set; }
}
```

Dynamic Views

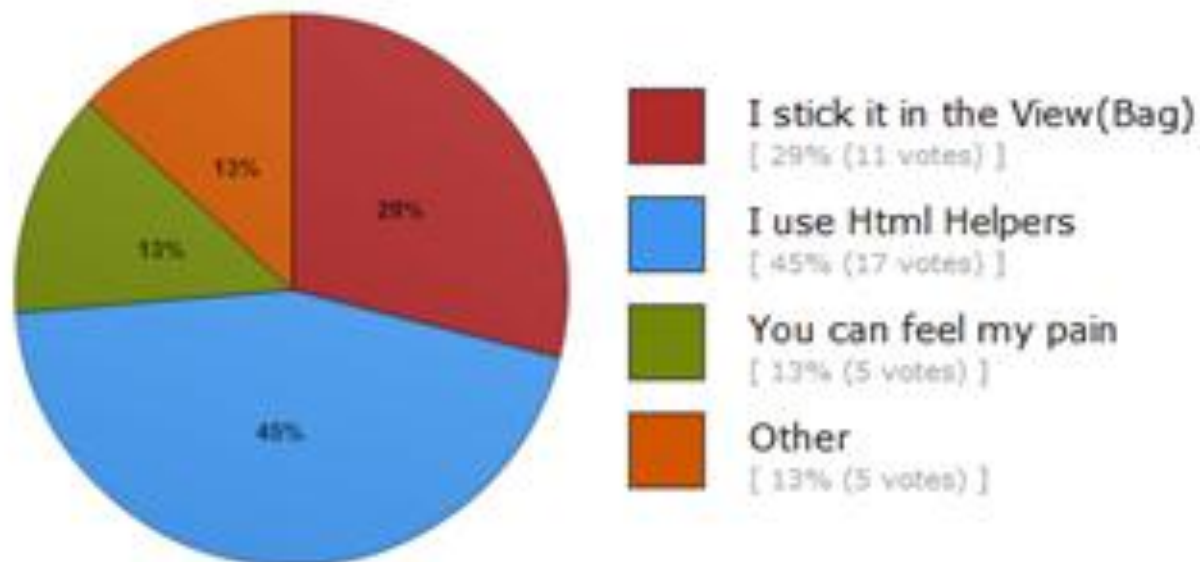
DEMO

DYNAMIC VIEWBAG ET AL

Using Convention over Configuration

4- If you bind to Domain Model, how do you deal with extra data such as country list?

Total: 38 votes



Modelmetadata

conventions

Convention Over Configuration

- Going beyond the MVC Folder Structure
- Using Convention with jQuery
- Using Convention without jQuery

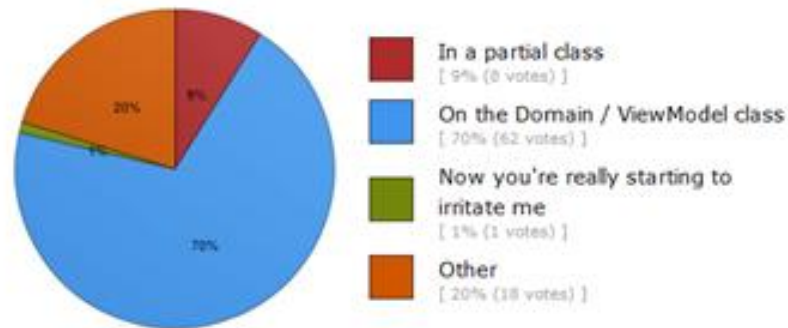
DEMO

VIEWMODEL LOOKUP

An improved Validation

6- Whether you bind to Domain Model or ViewModels, where do you place validation?

Total: 89 votes



Some on the client side, most of the business logic in the domain

validation rules class for each ViewModel

in a rules engine based domain validation http module

separate validation class

declarative/controller

We have concept of FormModels that contain form submission data and validation. In addition, validation goes on commands

Controller/Validation Definition/ModelMetadataConfiguration

separate classes

Application Services

Attributes / Controller (changing with MVC 3 I guess)

As a behavior in FubuMVC

External validator class

Partial and Domain/ViewModel classes, it depends

Validators in the Domain Model

We use Fluentvalidation

Model Binder w/ Validation Service via IoC

in a validation class

Hide (17) +

DEMO

FLUENT VALIDATION (R#VAULT)

Leveraging ReST

ReSTifying your servers

- Leverage
 - HTTP Methods
 - HTTP Status Codes
 - Content Types

Result Types

- ContentResult
- JsonResult
- PartialViewResult
- RedirectResult
- RedirectToRouteResult
- ViewResult
- EmptyResult

DEMO

VERBS AND CONTENT TYPES

DEMO

EASY MVC

Coping with Large Sites

Shop All Departments

- Books >
- Movies, Music & Games >
- Digital Downloads >
- Kindle >
- Computers & Office >
- Electronics >
- Home & Garden >
- Grocery, Health & Beauty >
- Toys, Kids & Baby >
- Clothing, Shoes & Jewelry >
- Sports & Outdoors >
- Tools, Auto & Industrial >

Search All Departments

GO



Wish List



Big Savings on All iPods

[Shop now](#)

What Other Customers Are Looking At Right Now



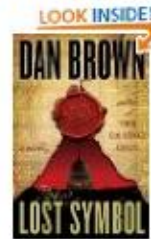
[Moon In My Room](#)

~~\$29.99~~ \$20.89



[Kindle Wireless Reading Device](#)

~~\$279.00~~



[The Lost Symbol](#)

Hardcover by Dan Brown
~~\$29.95~~ \$16.17

I and Love and You



I and Love and You is The Avett Brothers' major label debut, produced... [Read more](#)

~~\$11.98~~ \$9.99

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Save on costumes, decorations, and more.

Startup Tasks

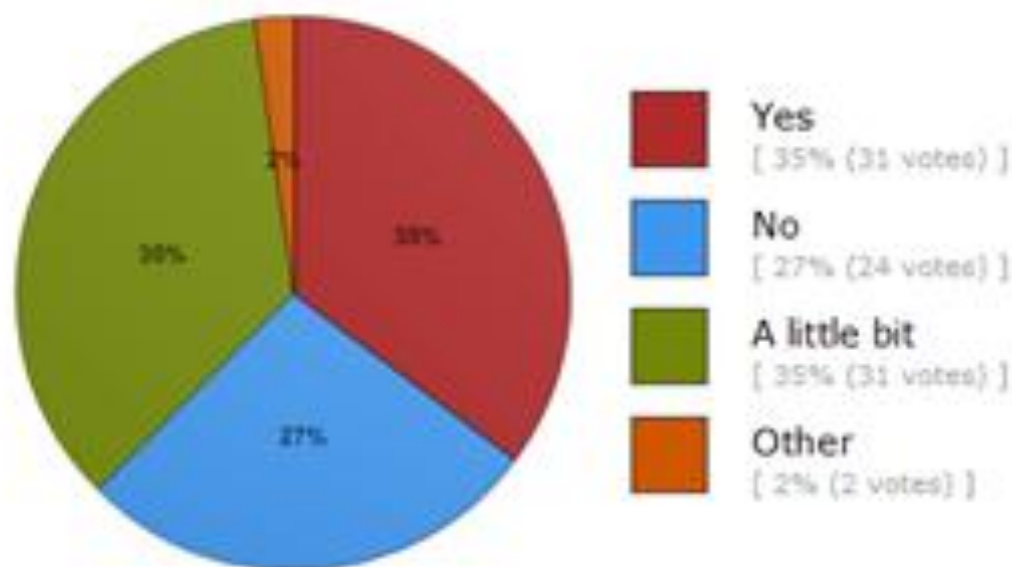
DEMO

STARTUP (R# VAULT)

NuGet

7- Finally, do you feel friction? Do you feel you're spending too much time on infrastructure?

Total: 88 votes



Not at all. I use custom T4 templates to generate my viewmodels based on SQL schema and my own metadata store.

Yes, but the pain is reducing as we build FubuMVC

Thank you



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