

Building Applications with ASP.NET MVC

Data part 2 of 2

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Data (Part II)

Validation

Model
Binding

Entity
Mapping

Edit - Windows Internet Explorer

http://localhost:49237/reviews/Edit/2

Log On

OdeToFood

Home About Restaurants Reviews

Edit

Review for Bistro Blanc

Rating

Awesome The field Rating must be a number.

Body

Save

Internet | Protected Mode: On 100%

Mapping

- When the database doesn't match conventions ...

```
public class OdeToFoodDB : DbContext
{
    ...

    protected override void OnModelCreating(ModelBuilder modelBuilder)
    {
        modelBuilder.Entity<Restaurant>()
            .Property(r => r.ID).HasColumnName("restaurant_id");

        modelBuilder.Entity<Restaurant>()
            .HasMany(restaurant => restaurant.Reviews)
            .WithRequired(review => review.Restaurant);

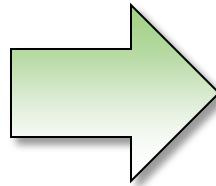
        modelBuilder.Entity<Review>()
            .ToTable("tbl_Reviews");

        base.OnModelCreating(modelBuilder);
    }
}
```

Model Binding

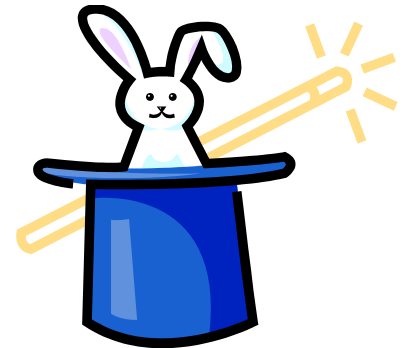
Rating

Body



HTTP POST /Review/Create
Rating=7&Body=Great!

DefaultModelBinder



```
public ActionResult Create(Review newReview)
{
    // ...
}
```

Validation with Annotations

- Attributes defined in `System.ComponentModel.DataAnnotations`
- Covers common validation patterns
 - Required
 - StringLength
 - Regex
 - Range

```
public class LogOnModel
{
    [Required]
    public string UserName { get; set; }

    [Required]
    public string Password { get; set; }

    public bool RememberMe { get; set; }
}
```

Custom Validation

- Custom attributes
- **IValidatableObject** (self validation)

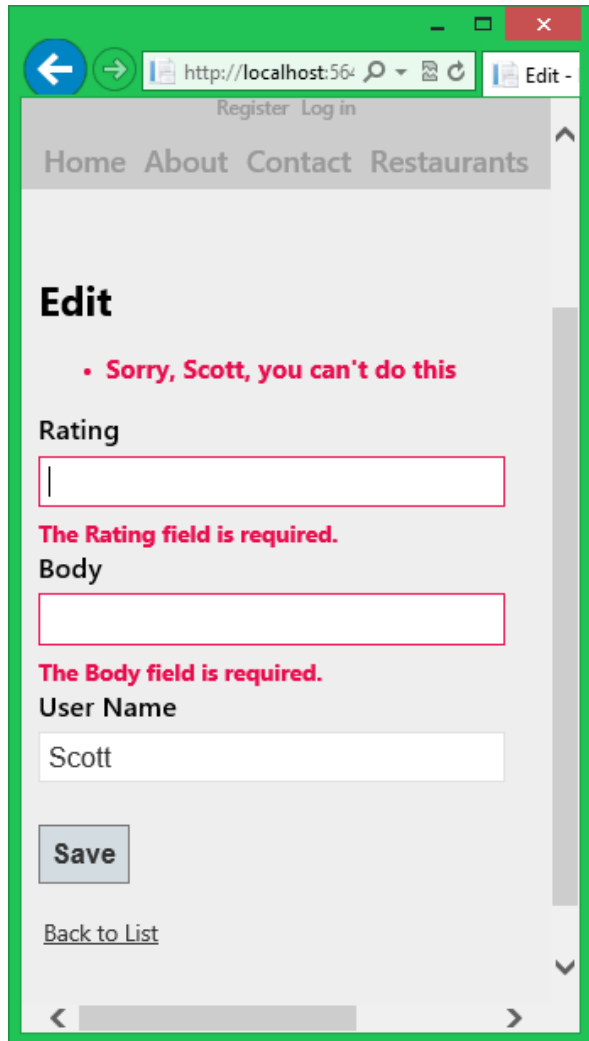
```
[AttributeUsage(AttributeTargets.Property)]
public sealed class MinLengthAttribute : ValidationAttribute
{
    // ...

    public override bool IsValid(object value)
    {
        string valueAsString = value as string;
        return (valueAsString != null &&
            valueAsString.Length >= _minCharacters);
    }
}
```

Display / Edit Annotations

Attribute	Description
DisplayColumn	Specify the property of a model class for simple text display.
HiddenInput	Render value in a hidden input (when editing).
UIHint	Specify the name of the template to use for rendering.
DataType	Common templates (email, password, URL, currency)
ReadOnly	Specify a read-only property (for model binding).
DisplayFormat	Format strings and null display text
ScaffoldColumn	Turn off display and edit capabilities
DisplayName	Friendly name for labels

Summary



The screenshot shows a web browser window with the URL `http://localhost:564`. The page has a navigation bar with links: Register, Log in, Home, About, Contact, and Restaurants. The main content area is titled "Edit" and displays a red error message: "• Sorry, Scott, you can't do this". Below this, there are three input fields: "Rating", "Body", and "User Name". The "Rating" field is empty and has a red border with the message "The Rating field is required." below it. The "Body" field is also empty and has a red border with the message "The Body field is required." below it. The "User Name" field contains the text "Scott". At the bottom of the form is a "Save" button and a link labeled "Back to List".

Validation

Create
Update
Delete

Model
Binding