Examining the Details and Delete Methods

By Rick Anderson | last updated March 26, 2015
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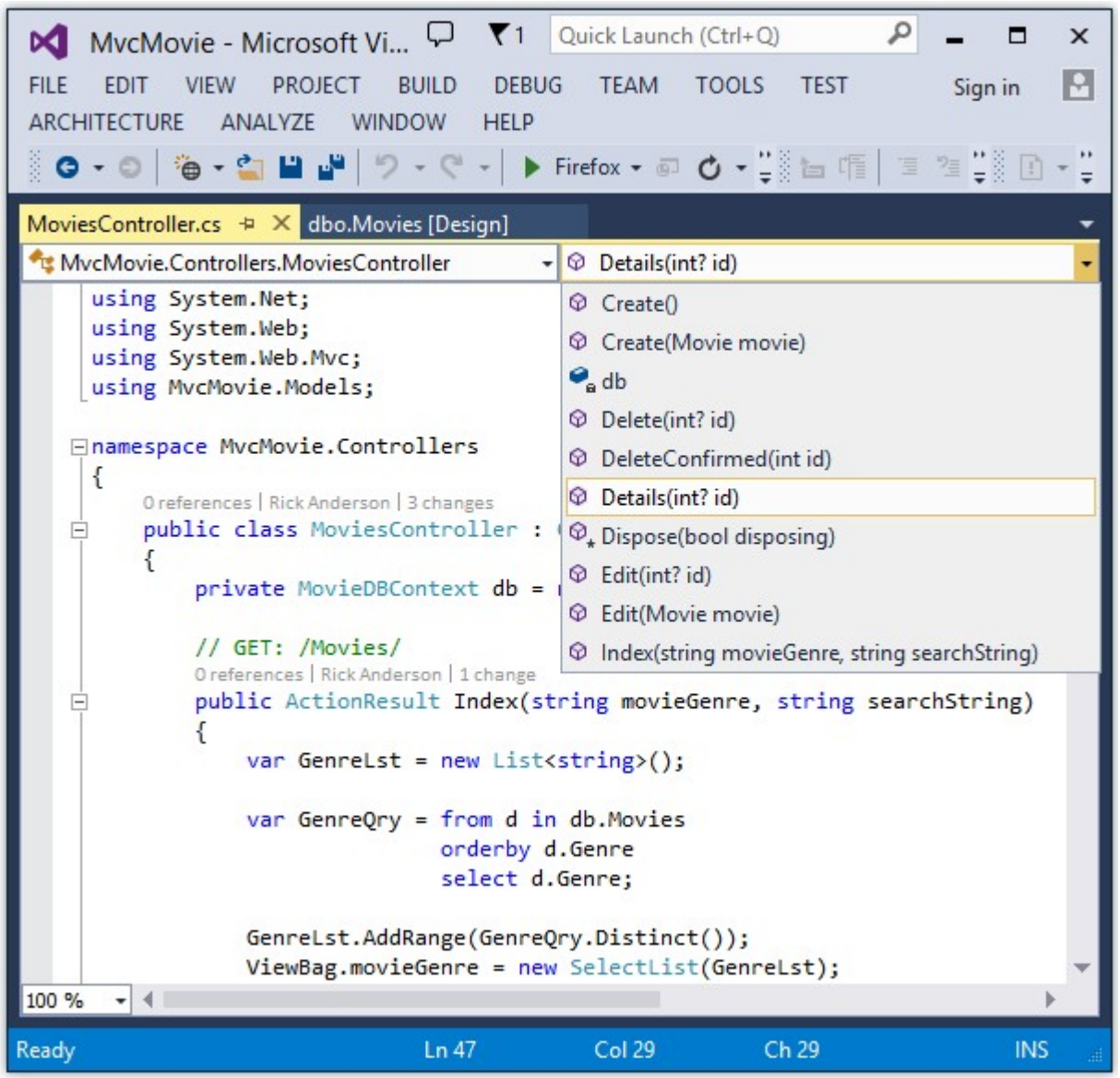
In this part of the tutorial, you'll examine the automatically generated `Details` and `Delete` methods.

Examining the Details and Delete Methods

Open the `Movie` controller and examine the `Details` method.




```
public ActionResult Details(int? id)
{
    if (id == null)
    {
```

```
        return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
    }
    Movie movie = db.Movies.Find(id);
    if (movie == null)
    {
        return HttpNotFound();
    }
    return View(movie);
}
```

The MVC scaffolding engine that created this action method adds a comment showing a HTTP request that invokes the method. In this case it's a `GET` request with three URL segments, the `Movies` controller, the `Details` method and a `ID` value.

Code First makes it easy to search for data using the **`Find (http://msdn.microsoft.com/en-us/library/system.data.entity.dbset.find(v=vs.103).aspx)`** method. An important security feature built into the method is that the code verifies that the `Find` method has found a movie before the code tries to do anything with it. For example, a hacker could introduce errors into the site by changing the URL created by the links from *http://localhost:xxxx/Movies/Details/1* to something like *http://localhost:xxxx/Movies/Details/12345* (or some other value that doesn't represent an actual movie). If you did not check for a null movie, a null movie would result in a database error.

Examine the `Delete` and `DeleteConfirmed` methods.

```
// GET: /Movies/Delete/5
public ActionResult Delete(int? id)
{
    if (id == null)
    {
        return new HttpStatusCodeResult(HttpStatusCode.BadRequest);
    }
    Movie movie = db.Movies.Find(id);
    if (movie == null)
    {
        return HttpNotFound();
    }
    return View(movie);
}

// POST: /Movies/Delete/5
[HttpPost, ActionName("Delete")]
[ValidateAntiForgeryToken]
public ActionResult DeleteConfirmed(int id)
{
    Movie movie = db.Movies.Find(id);
    db.Movies.Remove(movie);
    db.SaveChanges();
    return RedirectToAction("Index");
}
```

Note that the `HTTP Get Delete` method doesn't delete the specified movie, it returns a view of the movie where you can submit (`HttpPost`) the deletion.. Performing a delete operation in response to a GET request (or for that matter, performing an edit operation, create operation, or any other operation that changes data) opens up a security hole.

For more information about this, see Stephen Walther's blog entry **ASP.NET MVC Tip #46 — Don't use Delete Links because they create Security Holes (http://stephenwalther.com/blog/archive/2009/01/21/asp.net-mvc-tip-46-ndash-donrsquot-use-delete-links-because.aspx)** .

The `HttpPost` method that deletes the data is named `DeleteConfirmed` to give the HTTP POST method a unique signature or name. The two method signatures are shown below:

```
// GET: /Movies/Delete/5
public ActionResult Delete(int? id)

//
// POST: /Movies/Delete/5
[HttpPost, ActionName("Delete")]
public ActionResult DeleteConfirmed(int id)
```

The common language runtime (CLR) requires overloaded methods to have a unique parameter signature (same method name but different list of parameters). However, here you need two Delete methods -- one for GET and one for POST -- that both have the same parameter signature. (They both need to accept a single integer as a parameter.)

To sort this out, you can do a couple of things. One is to give the methods different names. That's what the scaffolding mechanism did in the preceding example. However, this introduces a small problem: ASP.NET maps segments of a URL to action methods by name, and if you rename a method, routing normally wouldn't be able to find that method. The solution is what you see in the example, which is to add the `ActionName("Delete")` attribute to the `DeleteConfirmed` method. This effectively performs mapping for the routing system so that a URL that includes */Delete/* for a POST request will find the `DeleteConfirmed` method.

Another common way to avoid a problem with methods that have identical names and signatures is to artificially change the signature of the POST method to include an unused parameter. For example, some developers add a parameter type `FormCollection (http://msdn.microsoft.com/en-us/library/system.web.mvc.formcollection.aspx)` that is passed to the POST method, and then simply don't use the parameter:

```
public ActionResult Delete(FormCollection fcNotUsed, int id = 0)
{
    Movie movie = db.Movies.Find(id);
    if (movie == null)
    {
        return HttpNotFound();
    }
    db.Movies.Remove(movie);
    db.SaveChanges();
    return RedirectToAction("Index");
}
```

Summary

You now have a complete ASP.NET MVC application that stores data in a local DB database. You can create, read, update, delete, and search for movies.

Next Steps

After you have built and tested a web application, the next step is to make it available to other people to use over the Internet. To do that, you have to deploy it to a web hosting provider. Microsoft offers free web hosting for up to 10 web sites in a **free Azure trial account (http://www.windowsazure.com/en-us/pricing/free-trial/?WT.mc_id=A443DD604)** . I suggest you next follow my tutorial **Deploy a Secure ASP.NET MVC app with Membership, OAuth, and SQL Database to Azure (http://www.windowsazure.com/en-us/develop/net/tutorials/web-site-with-sql-database/)** . An excellent tutorial is Tom Dykstra's intermediate-level **Creating an Entity Framework Data Model for an ASP.NET MVC Application (/entity-framework/tutorials/creating-an-entity-framework-data-model-for-an-asp-net-mvc-application)** . **Stackoverflow (http://stackoverflow.com/help)** and the **ASP.NET MVC forums (https://forums.asp.net/1146.aspx)** are a great places to ask questions. Follow **me (https://twitter.com/RickAndMSFT)** on twitter so you can get updates on my latest tutorials.

Feedback is welcome.

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