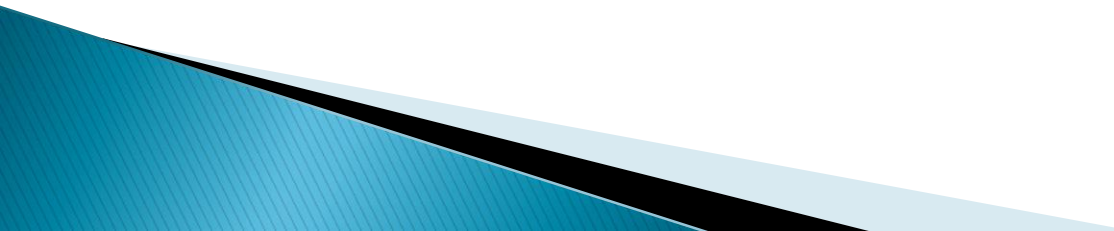


# Enterprise Frameworks

## Authentication Tutorial

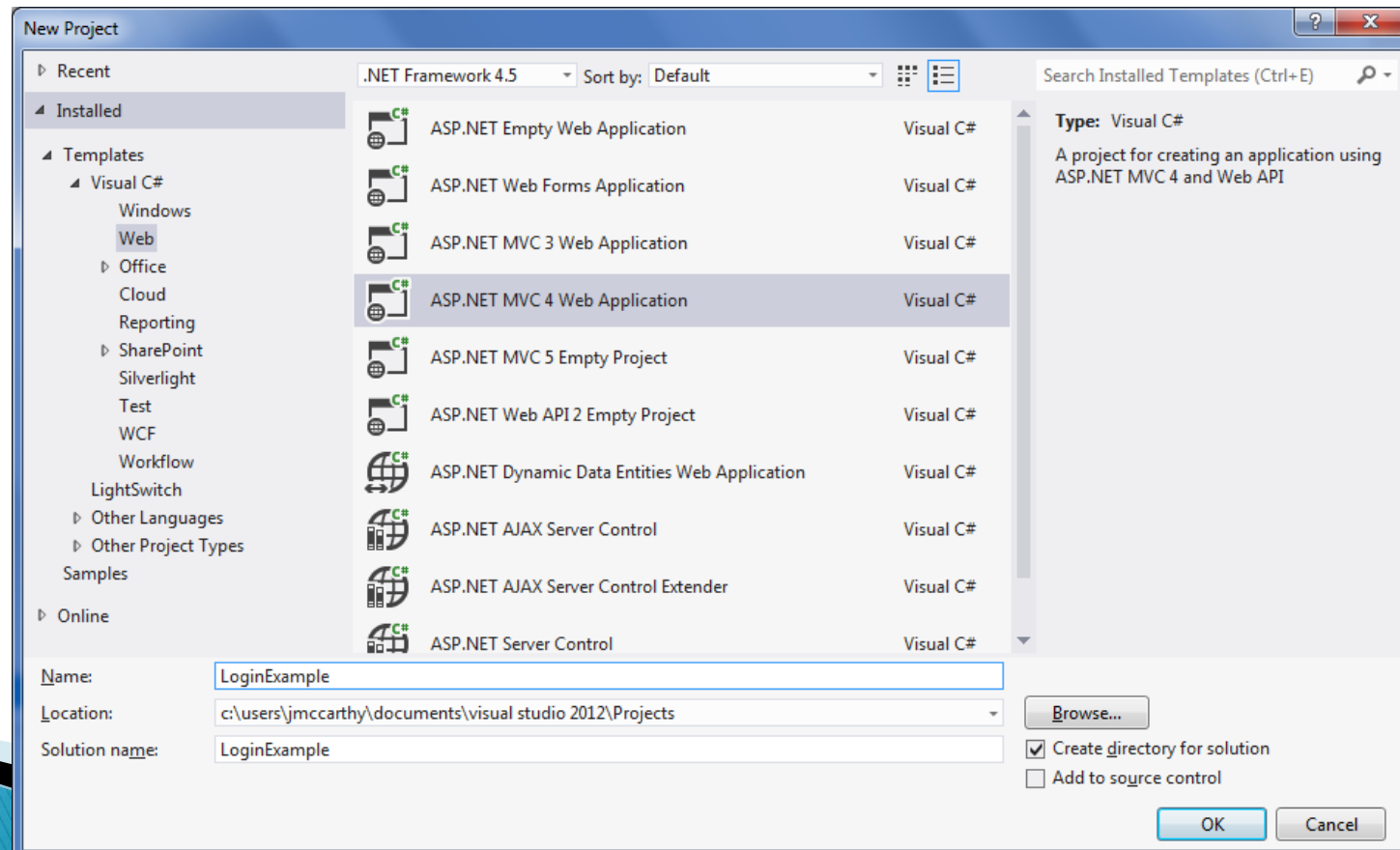


# Overview

- ▶ Add a login to a project
  - ▶ General User
  - ▶ Admin User
- 
- A decorative graphic element in the bottom-left corner of the slide, consisting of overlapping blue and black geometric shapes.

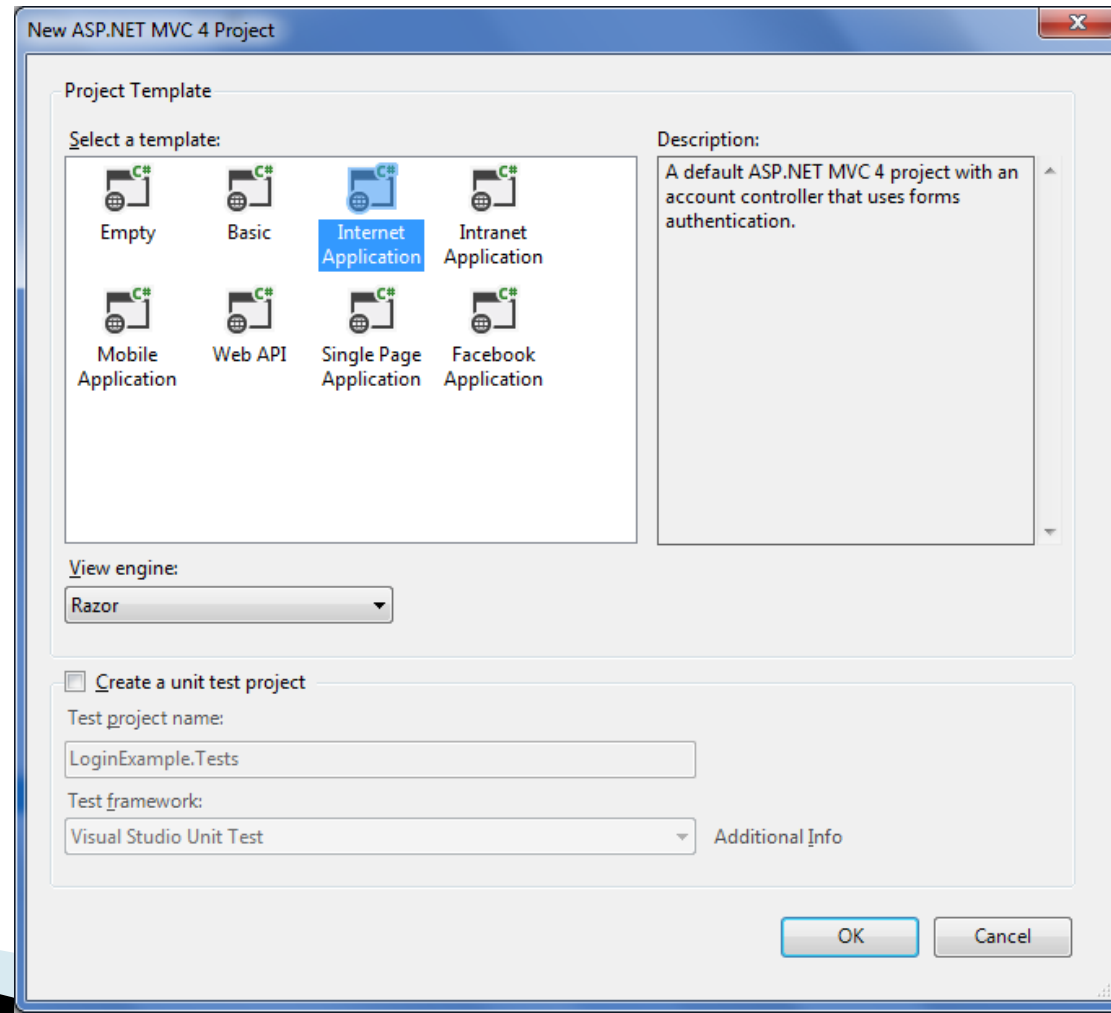
# Create a new web application

## ▶ ASP.Net MVC 4 Application



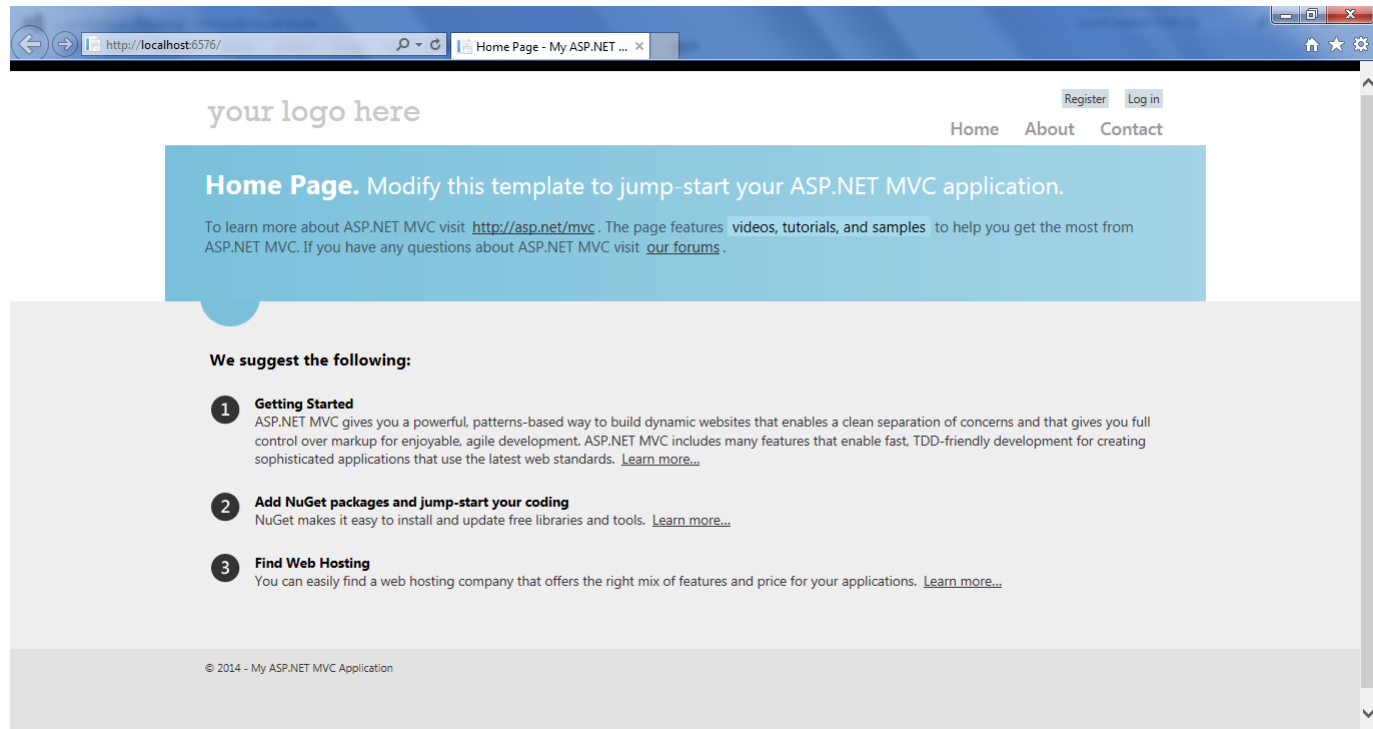
# Create a new web application

## ► Internet Application



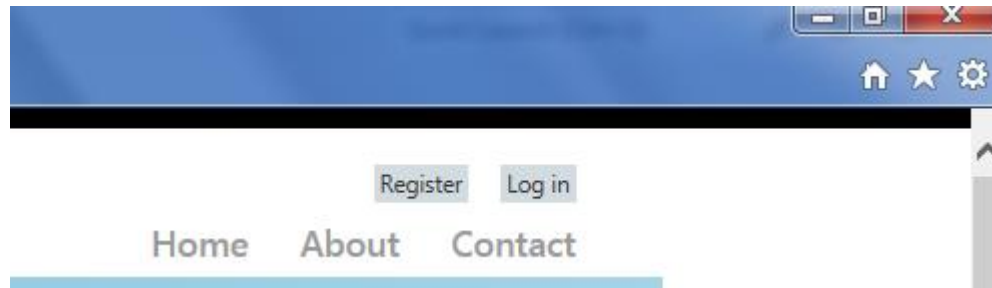
# Run the Application

- ▶ The running application should look as follows



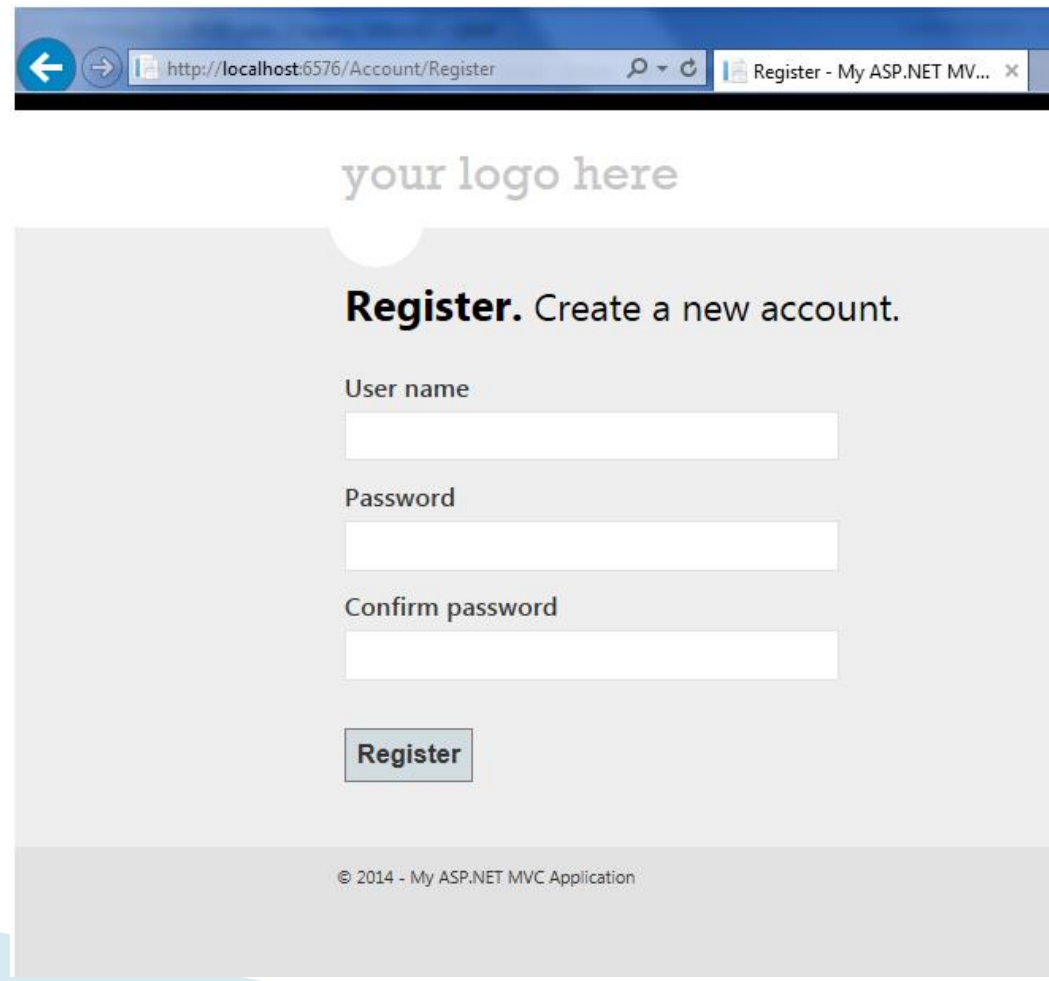
# Register a new User

- ▶ Register a new user



# Register a new User

- ▶ The registration form looks as follows:



A screenshot of a web browser displaying a registration form. The browser's address bar shows the URL `http://localhost:6576/Account/Register`. The page has a light gray background. At the top, there is a placeholder for a logo that says "your logo here" in a light gray font. Below this, the heading "Register. Create a new account." is displayed in bold black text. The form consists of three input fields: "User name", "Password", and "Confirm password", each with a white input box. Below the input fields is a blue "Register" button. At the bottom of the page, there is a footer that reads "© 2014 - My ASP.NET MVC Application".

your logo here

**Register.** Create a new account.

User name

Password

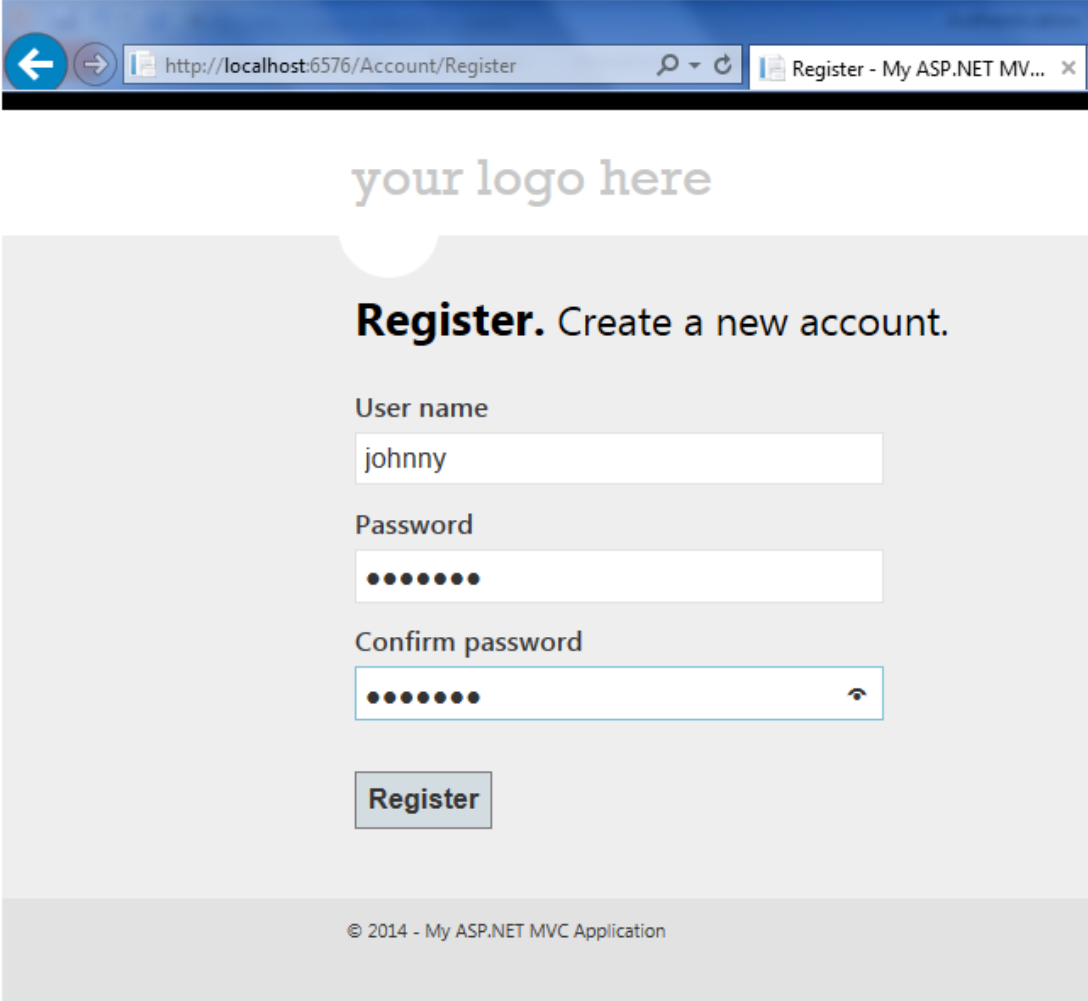
Confirm password

**Register**

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# Register a new User

- ▶ Enter a username and a password



The screenshot shows a web browser window with the address bar displaying `http://localhost:6576/Account/Register`. The page title is "Register - My ASP.NET MV...". The main content area has a light gray background. At the top, there is a placeholder for a logo that says "your logo here". Below this, the heading "Register. Create a new account." is displayed. The form contains three input fields: "User name" with the value "johnny", "Password" with masked characters, and "Confirm password" with masked characters and a visibility toggle icon. A "Register" button is located below the form fields. The footer of the page reads "© 2014 - My ASP.NET MVC Application".

your logo here

**Register.** Create a new account.

User name  
johnny

Password  
.....

Confirm password  
.....

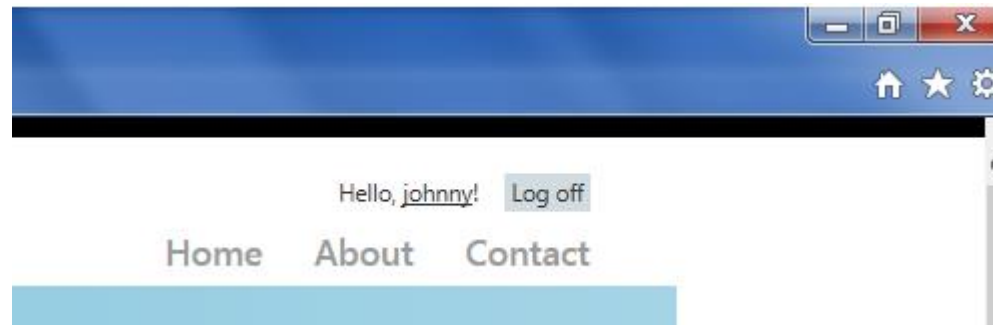
Register

© 2014 - My ASP.NET MVC Application



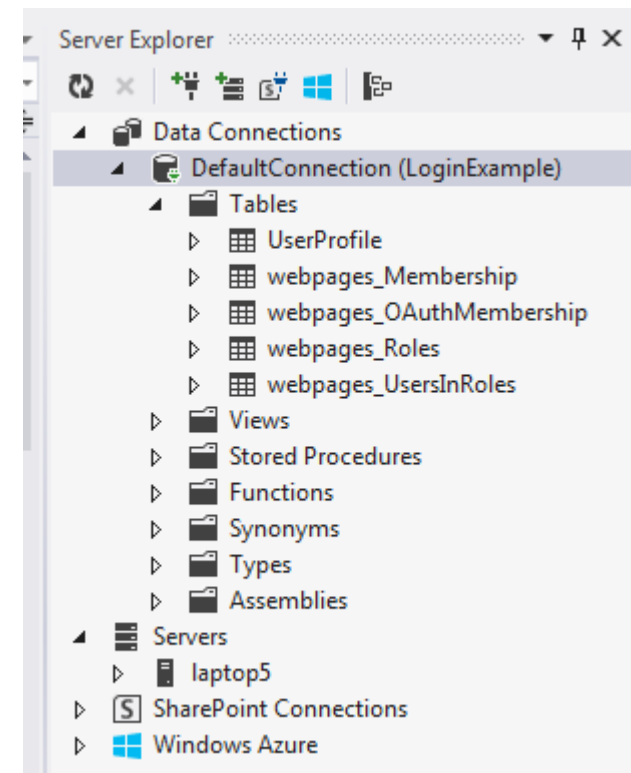
# Register a new User

- ▶ A successful registration will result is a screen that looks as follows:



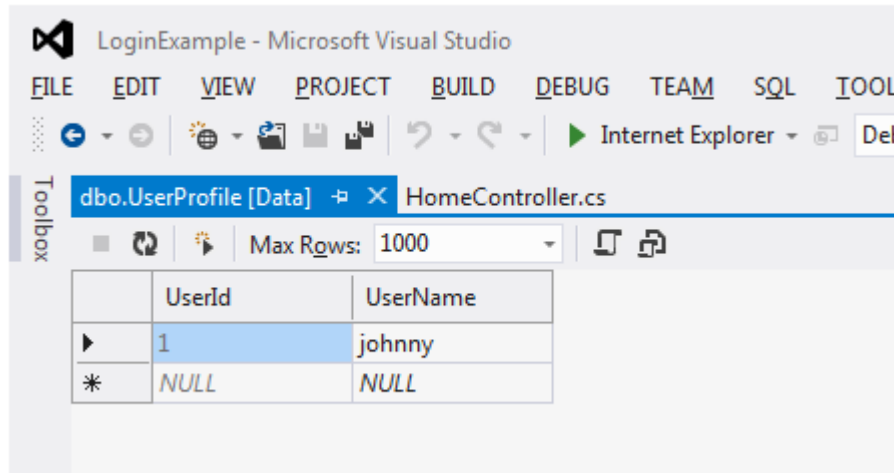
# View the Database

- ▶ Creating the new user has setup a database to cater for the authentication process.



# View Data

- ▶ Right click UserProfile and select show data.
- ▶ The following will appear:

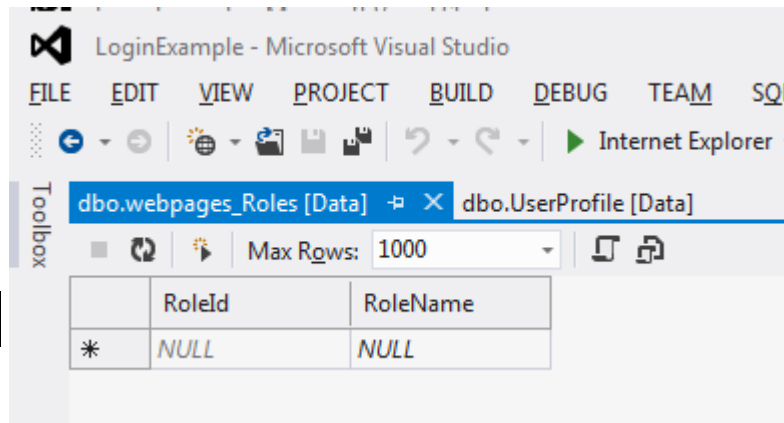


Visual Studio interface showing the 'View Data' window for 'dbo.UserProfile [Data]'. The window displays a table with columns 'UserId' and 'UserName'. The first row shows '1' and 'johnny'. The second row is marked with an asterisk and shows 'NULL' for both fields. The 'Max Rows' is set to 1000.

	UserId	UserName
▶	1	johnny
*	NULL	NULL

# View Data

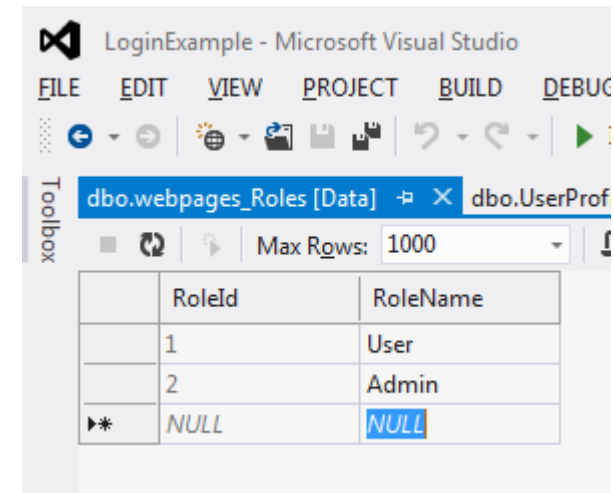
- ▶ Right click webpages\_Roles and select show data.



- ▶ We wil

# Add new Roles

- ▶ Add two new Roles:
- ▶ User
- ▶ Admin

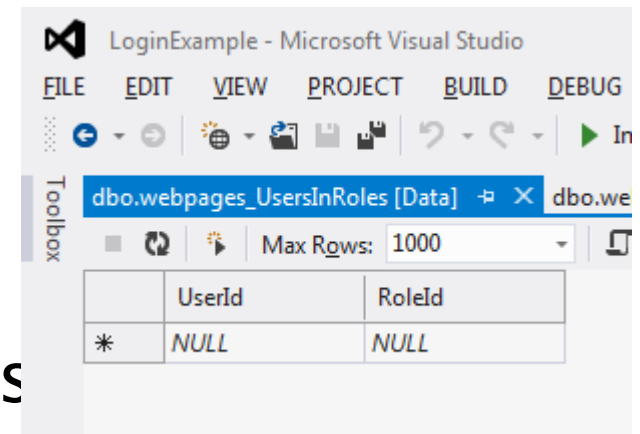


Visual Studio interface showing the 'dbo.webpages\_Roles [Data]' table. The table has columns 'RoleId' and 'RoleName'. It displays two existing roles: 'User' (RoleId 1) and 'Admin' (RoleId 2). A third row is highlighted, showing 'RoleId' as NULL and 'RoleName' as NULL, indicating a new role being added.

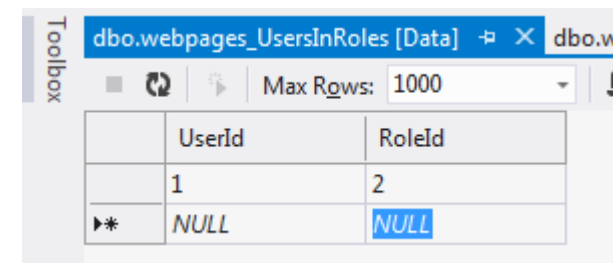
	RoleId	RoleName
	1	User
	2	Admin
▶*	NULL	NULL

# Associate a user with a role

- ▶ Right click webpages\_UsersInRoles and select show data.



- ▶ Add an entry to associate a user
- ▶ Setting user Johnny as an Admin



# Testing the new user settings

- ▶ Register a new user through the web application named billy.
- ▶ The application should now have two users:
  - A standard user named billy
  - An Admin user named Johnny

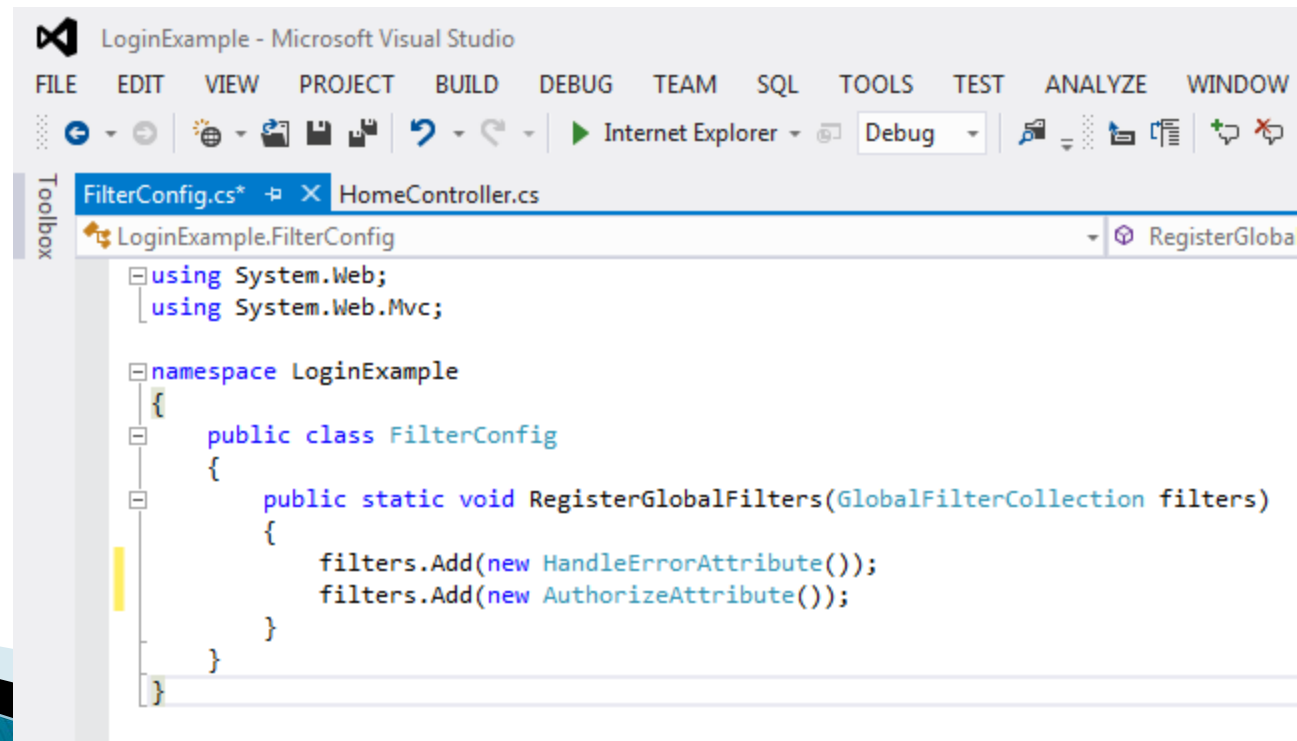
# Protecting Functionality

- ▶ For the standard web application the about page can only be viewed by an Admin User, the Contact page can be viewed by a general user and an Admin, and the home page can be viewed even if a user hasn't logged in.



# Adding a filter

- ▶ Add a filter to the FilterConfig file in the App\_Start folder. This filter will require a user to login to use the functionality of the web application.
- ▶ Add: `filters.Add(new AuthorizeAttribute());`



# Update the Home Controller

- ▶ Step 1 – Allow anyone view the home page:
- ▶ Add [AllowAnonymous] to the top of the Index method.

```
[AllowAnonymous]
public ActionResult Index()
{
    ViewBag.Message = "Modify this template to jump-start your ASP.NET MVC application.";

    return View();
}
```

# Update the Home Controller

- ▶ Step 2 – Allow only Admins view the About page. Add `[Authorize(Roles="Admin")]` to the top of the About method.

```
[Authorize(Roles="Admin")]  
public ActionResult About()  
{  
    ViewBag.Message = "Your app description page.";  
  
    return View();  
}
```

# Update the Home Controller

- ▶ Step 3 – Allow logged in users view the Contact page. This is a requirement by the filter that was added earlier, no action is needed to provide the functionality in the web app

```
// Protected by the default filter
public ActionResult Contact()
{
    ViewBag.Message = "Your contact page.";

    return View();
}
```

# Run the application and test the functionality.

- ▶ Additional tasks.
- ▶ Try add this functionality to the Associations Lab with books and publishers.