2011

CODE
ONTIME

USER GUIDE

Creating a MySQL Web Application

Code On Time Generator creates powerful and user-friendly line-of-business web applications straight from *MySQL* databases with *Microsoft Office* look and feel.

Here is how you can start on your next great project.

Installation

Download the code generator at http://codeontime.com/download.aspx. The installation program will also install *Microsoft.NET 4.0*, *IIS Express 7.5*, and *Microsoft Report Viewer 2010*. These components are available at no cost and fully supported by Microsoft.

The code generator will use *IIS Express* to run generated web applications on your computer. It can be installed alongside the production version of IIS available in several versions of *Microsoft Windows*. The report viewer component will render will render dynamically created reports in *PDF*, *Word*, *Excel*, and *TIFF* formats.

Follow the installation instructions. When finished, click on the *Code OnTime Generator* shortcut created on the desktop.

Generating an Application

Start a new *Web Site Factory* project and enter "MyFirstApp" as the project name.

Click the *Next* button until you reach the *Data Connection* page in the project wizard, as shown to the right. For Data Provider, select the MySQL option, and then use the Connection String Assistant by clicking on the link below the Connection String field. If you already have the connection string, you can just paste it in the field.
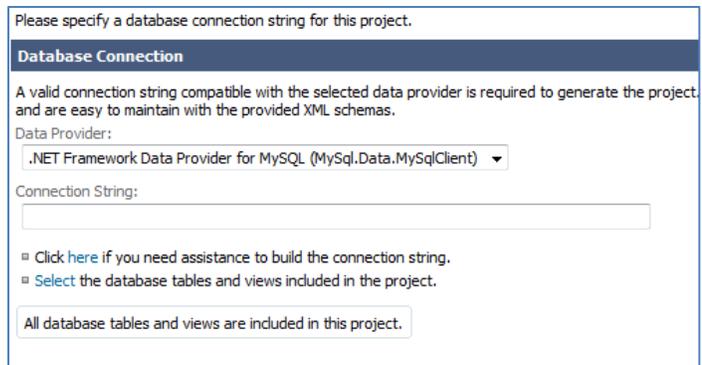
Please specify a database connection string for this project.

Database Connection

A valid connection string compatible with the selected data provider is required to generate the project. and are easy to maintain with the provided XML schemas.

Data Provider:

.NET Framework Data Provider for MySQL (MySql.Data.MySqlClient)

Connection String:

▫ Click here if you need assistance to build the connection string.
▫ Select the database tables and views included in the project.

All database tables and views are included in this project.
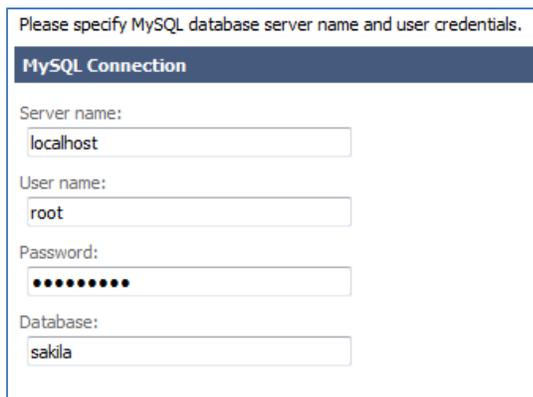
Please specify MySQL database server name and user credentials.

MySQL Connection

Server name:

localhost

User name:

root

Password:

●●●●●●●●●

Database:

sakila

To the left is the connection configuration screen that will assist in entering a valid connection string. In the screenshot below we have specified a connection to the demo "SAKILA" database available from

http://dev.mysql.com/doc/index-other.html

Test the connection, press the *OK* button, and press *Next* until you arrive on the *Reporting* page.

Enable dynamic and static reporting in your project by checking the checkbox.

Attention:
If you have Microsoft Visual Studio 2008/2010 installed on your computer then the viewer is likely installed already. Users of Visual Web Developer Express 2008/2010 will have to install the report viewer if reports are enabled for this project.

You have to install the viewer on the server machine when the generated application is deployed.

Reports:
☑ Enable dynamic and static reports in my application.

Click *Next* and you will see *Authentication and Membership* page of the project wizard. Check the check box labeled "Enable support for ASP.NET Membership with membership bar user manager" and "Membership will use a standalone database that already exists". Select the *MySQL* option in *Provider Name,* and enter a connection to the project database (*sakila* database in our example).

You can also point the connection string to a different MySQL database to store ASP.NET membership data that can be shared between multiple projects. Note that the database must already exist. For example, you can have MySQL execute the "create database users" command. If you do so, you must specify the name of the "users" database in the membership connection string.

The generated application will automatically initialize supporting data structures and stored procedures through *MySQL ASP.NET Membership Provider*. This provider is included with *MySQL Connector/NET* that you already have on your computer if you are using MySQL with ASP.NET and Microsoft tools.

Authentication and Membership

Please select authentication and membership options for your application. Some options will require custom coding or not compatible with each other.

Application Membership Features:
☑ Enable support for ASP.NET Membership with membership bar and user manager.
☐ Enable Windows Authentication. Recommended for *Intranet* applications only.
☐ Enable custom authentication and membership implementation. Requires additional coding.
☐ Enable a dedicated login page instead of a fly-over login dialog.
☑ Display "Remember Me" option on the fly-over login dialog.
☐ Login option "Remember Me" is set by default.
☑ Display "Password Recovery" link on the fly-over login dialog.
☑ Display "Sign Up" link on the fly-over login dialog.
☑ Display "My Account" link on the membership bar.
☑ Display "Help" link on the membership bar and support page-level help.
☐ Detect if user is idle for longer than [15] minutes and log the user out of the application.
☑ Membership will use a standalone database that already exists.

Specify a valid connection string compatible with the selected data provider if you want to use a standalone membership database.

Data Provider:
.NET Framework Data Provider for MySQL (MySql.Data.MySqlClient) ▼

Connection String:
[   ]

▫ If the connection string is left blank and membership is enabled then ASP.NET will expect that Microsoft SQL Express is installed on this computer.
▫ Click here if you need assistance to build the connection string.

ASP.NET Membership gives you a built-in way to validate and store user credentials and helps you manage user authentication in your Web sites.

Standard ASP.NET membership features can be enhanced with AJAX-enabled user and role manager. Membership bar component will be displayed at the top of all pages and will provide an attractive AJAX-enabled login window, access to self-registration, password recovery, and user account modification with no code to write.

ASP.NET Membership requires an instance of Microsoft SQL Express 2008 installed on your computer. You may opt to host a standalone database membership database or keep the membership structures in your own database.

[Cancel]   [Back]   [Next]

Click *Next* several times until you reach the Data Controllers page. You are now ready to generate your application and see it in action.

Click *Next* and wait for generation to finish. When generation is complete, a browser window will open. (If the browser page comes out blank then simply give it a few moments and hit *Refresh* button. This may happen if your computer is busy and *IIS Express* is still preparing to start the generated web application.)

You should see the following screen.
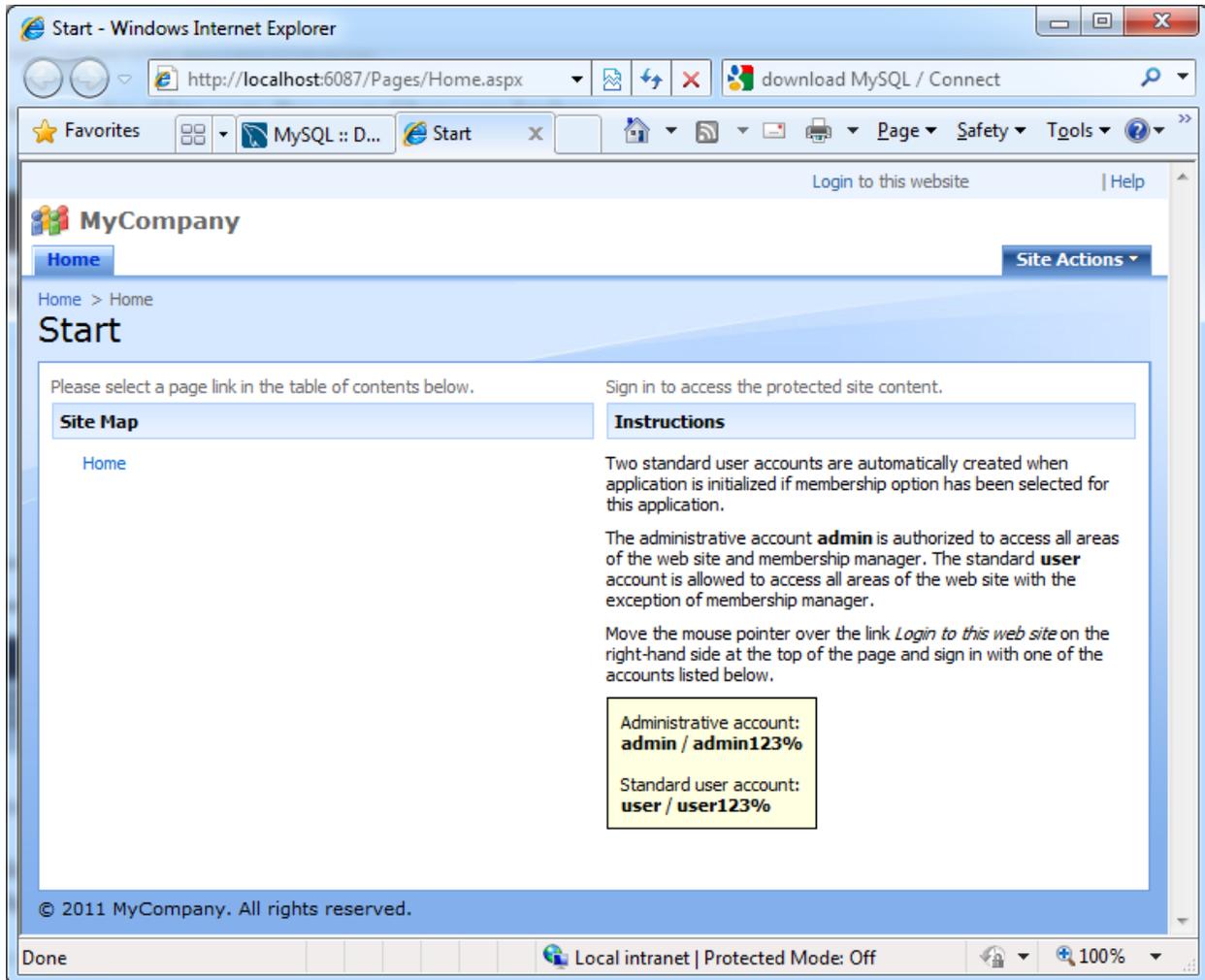
Make sure to keep the code generator running. *Code On Time Generator* will automatically shut down the started IIS Express instances if the web application generator window is closed.

Using the Generated Web Application

Sign in using one of the user accounts automatically created by application. It is suggested to sign in as administrator. (username=admin, password= admin123%). This user account is authorized to access all pages, including the membership manager.

Click around and play with the generated pages.

To the right is the screenshot of a selected record in edit mode on the *Film* page. The detail record lists are tabbed at the bottom. Several other standard page layouts are available. You can use the project designer to create custom layouts. Click here to see an example of a custom *Order Form*.
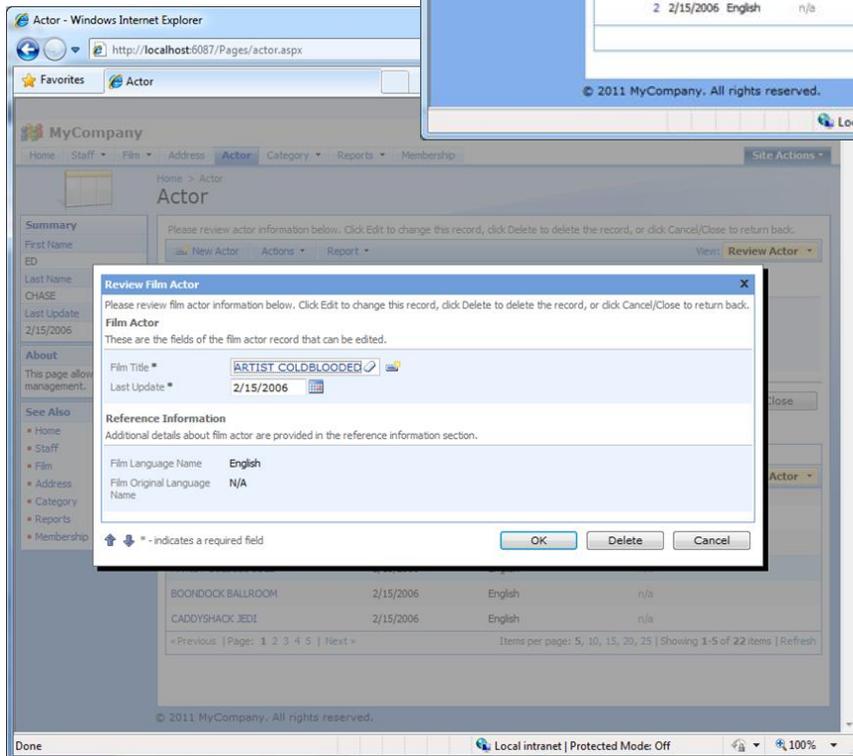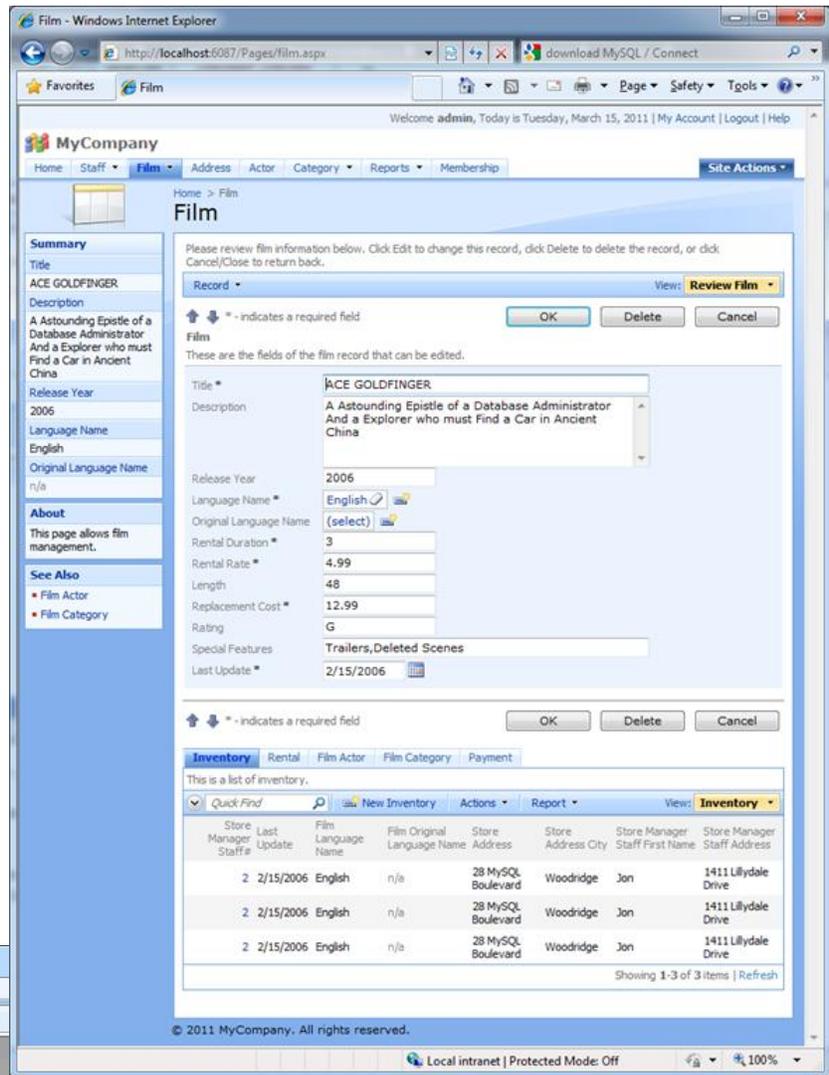
Note that detail records can be edited in modal forms if you are using a commercial edition of the web application generator.

You can also use the *Quick Find* box to search parameters in any field. If you click on the column headers, a dropdown will appear with a list of filtering options. These options will be adaptively filtered based on the current settings.
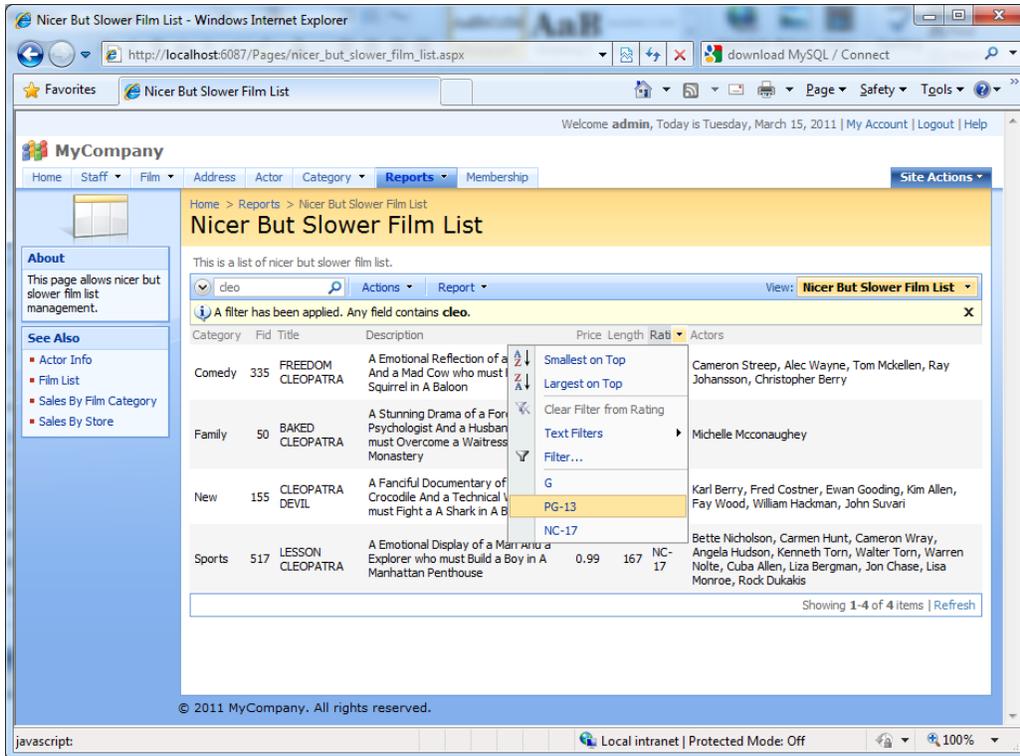
On the action bar, select *Report | Adobe PDF* to generate a PDF printout of the data. All sorting and filtering options will be applied to the report.
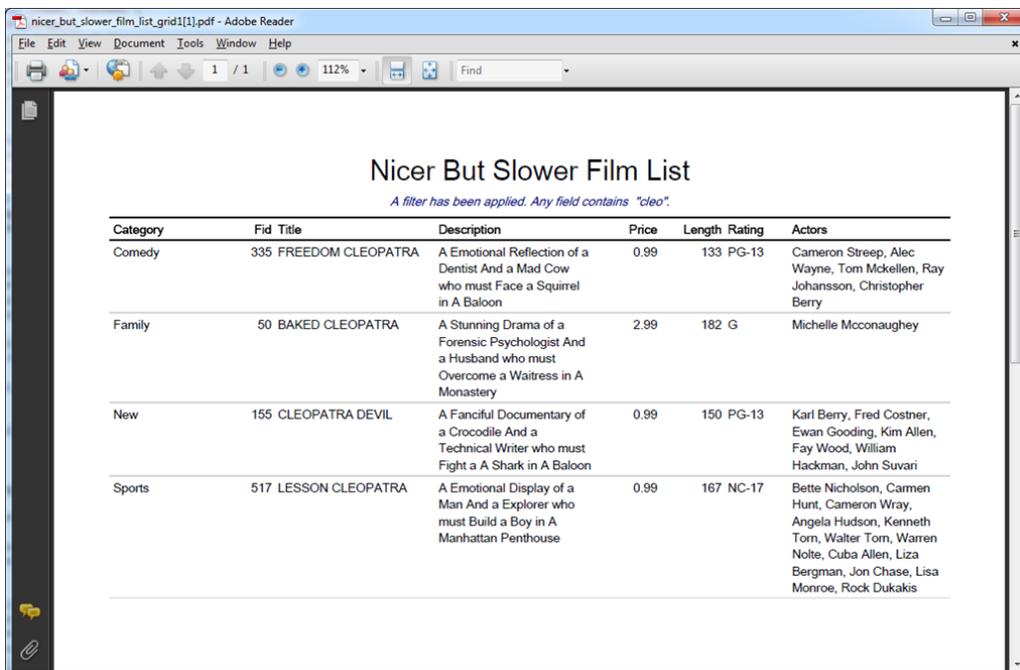
You can also create an *RSS Feed* of the displayed data by using *Select Actions | View RSS Feed*. Subscribe to the feed to be notified by your RSS feed reader when new data with the filtering criteria becomes available. This makes an emailing system unnecessary.
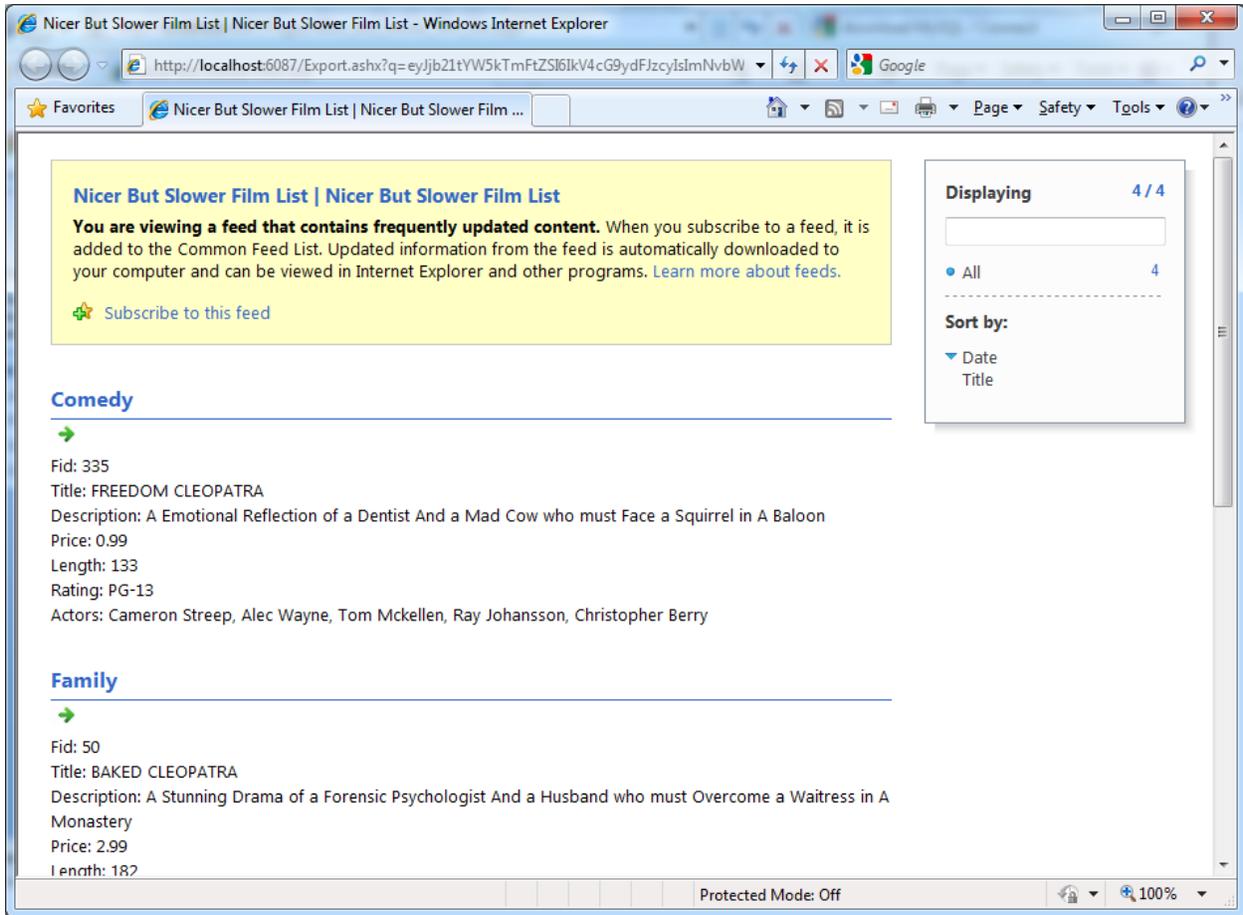
You can also perform data analysis, to extend your application and data to end-user desktops. This enables safe and efficient data delivery to your business users. Use *Actions | Export to Spreadsheet* to export data for analysis, as shown on the right. A prompt will appear to warn you that data is currently being downloaded. Press the *Open* button to open the file. This will start *Microsoft Excel*.
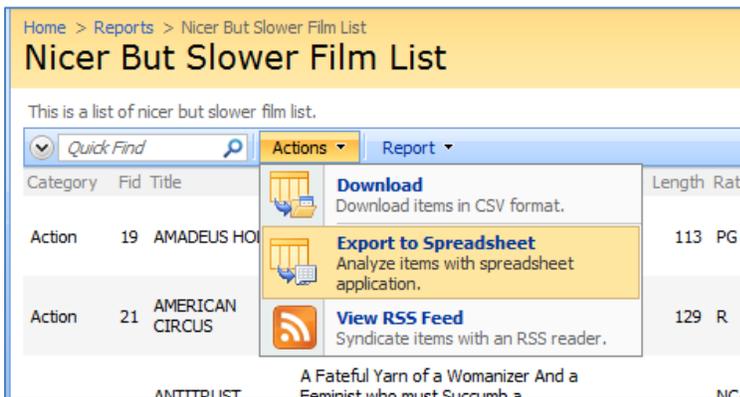
You will see a warning about potential security concern. We are downloading data from our own application – there is no risk involved. Press *Enable* to continue.

The data will be downloaded into a new worksheet. You may be asked to identify yourself. Enter *admin/admin123%* or any other valid user account registered in the application membership database. When your account is confirmed, the data will be displayed.
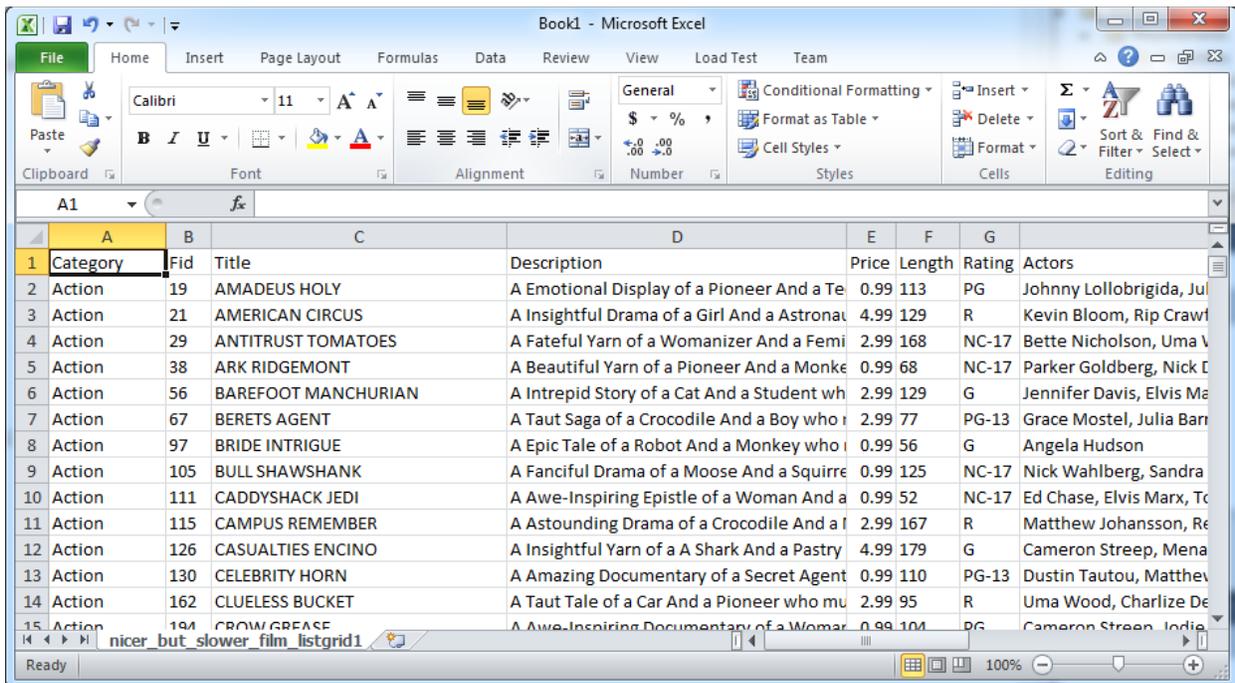
Select *Insert* on the ribbon and click *PivotTable* button, and confirm the creation of a data range.
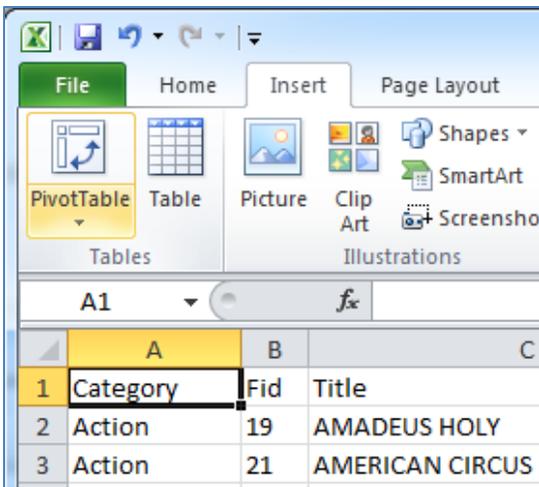
Now you are good to go. Here is the *Pivot View* of the movies database that shows distribution of movie categories by rating.
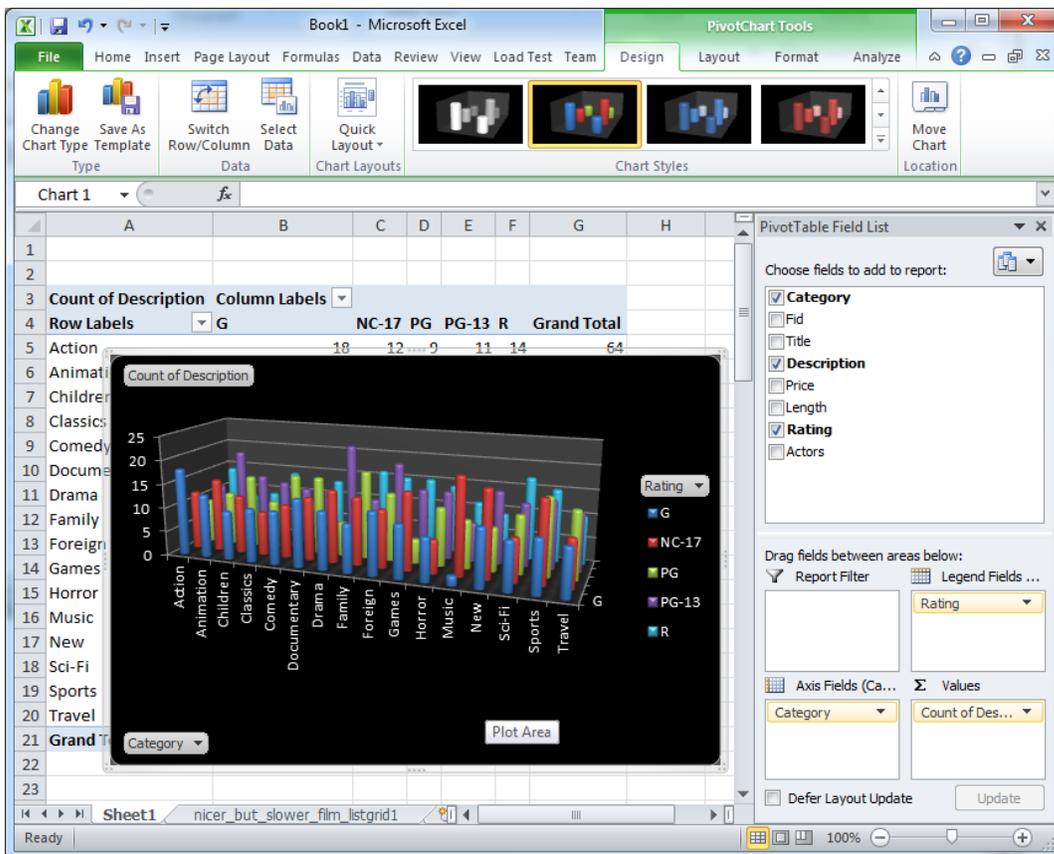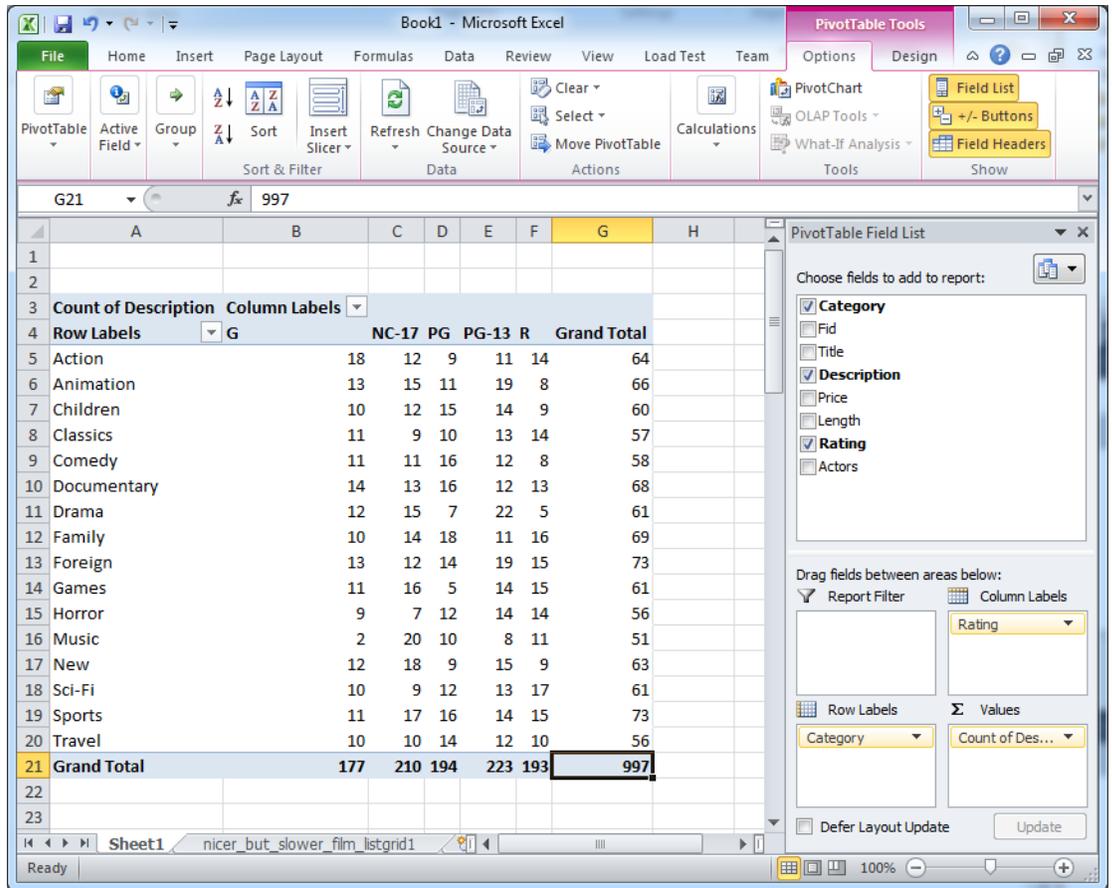
Within a few clicks, you can easily turn that into a *Pivot Chart*.

Within minutes, business users can make sense of their data and have amazing dashboards built in the tool they know best – *Microsoft Excel*. The data feed embedded into the spreadsheet is live. Users can save the spreadsheet on their hard drive. To refresh the data, users can open the spreadsheet, open *Data* on the ribbon, and press *Refresh*. Users will be prompted to re-enter the user name and password. The user's identity will be verified against the database and the data feed will be refreshed.
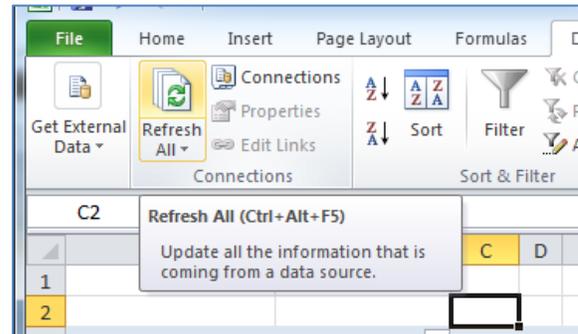
Conclusion

Astonishing business features and the friendly user interface of your generated web application will instantly make your MySQL database a heart of business operations.

Review code customization techniques at http://codeontime.com/tutorials.aspx to learn how to use the application designer. Enhance the application with the point-and-click interface, or learn how to write custom business rules if you want even more from your application.