

Generate SQL Azure databases!

By **Carl Anderson** | 14 Apr 2010

Industrialize your application developments using CodeFluent Entities

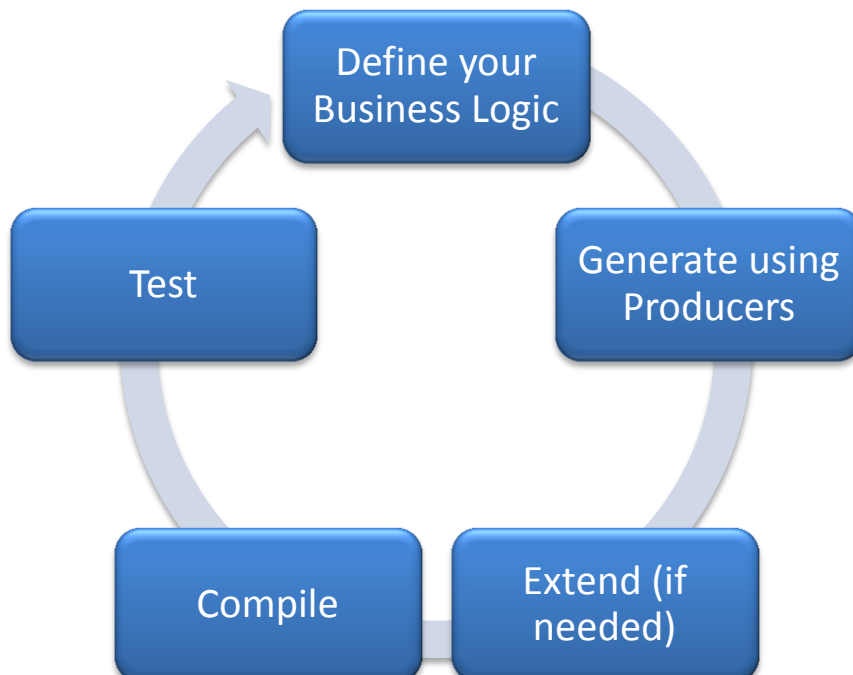
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What is CodeFluent Entities?

CodeFluent Entities is a model-first tool integrated with Visual Studio 2008/2010, for continuous generation of all layers and their plumbing code: database, business, service and user interface.

Define your business logic in its centralized model, choose your target platforms and technologies, and generate. Generation is a continuous process throughout developments: you can do it as much as needed, without ever losing existing data. The generated code is standard .NET, so extending and using it is absolutely standard .NET developments. In practice, developing an application using CodeFluent Entities is as follow:

- Define your business logic in a pragmatic model using platform independent concepts such as Entities, Properties, Methods, Rules, etc.
- Define *producers* which from your model will generate actual code. Each producer generates optimized code for a single technology (e.g. SQL Server, Oracle, C#, WCF, SharePoint, SQL Azure, etc.)
- The generated code is state-of-the-art code: plain old partial classes easily extensible, implementing an extensive set of well-known interfaces to make your life easier.
- Since the generated code is standard .NET code, nothing specific to CodeFluent Entities is needed afterwards: use it, compile it and run it as usual.
- A structural change is needed such as adding a new entity, changing a type or adding a feature such as localization or security? Update your model and generate over!



In the end, CodeFluent Entities provides a recipe that will help you quickly raise rock-solid foundations, and successfully craft the rest of your .NET applications, letting you focus on what truly matters.

What is Microsoft SQL Azure?

Microsoft® SQL Azure™ Database is a cloud-based relational database service (RDBMS) built on SQL Server® technologies. It is a highly available, scalable, multi-tenant database service hosted by Microsoft in the cloud. SQL Azure Database helps to ease provisioning and deployment of multiple databases. Developers do not have to install, setup, patch or manage any software, as all that is taken care of by Microsoft with this platform as a service (PAAS). High availability and fault tolerance is built-in and no physical administration is required.

For more information please refer to Microsoft's [official SQL Azure website](#).

The SQL Azure Producer

The SQL Azure producer translates your model into *Microsoft SQL Azure* compliant T-SQL scripts to **generate a SQL Azure database**. This way entities will become tables, properties become columns, methods translated into stored procedures, and so on. Furthermore, the **generated scripts can be deployed automatically** on the SQL Azure database.

In addition, you can work locally using the producer to **generate on a local or on-premise Microsoft SQL Server database**. In this scenario, the SQL Azure producer **generates 100% compliant code on both platforms**. Moreover, when generating on a *Microsoft SQL Server* instance, the producer detects it and will use a **differential engine** which will update the database through generations rather than dropping and creating it over, this way **ensuring you're not losing any data during your developments**. This differential engine is in fact a key feature since it allows developers to generate continuously, this way preserving the cyclic aspect of an application development lifecycle as described earlier.

Finally, once the application is ready to go live, the developer can indicate the producer in a single click to deploy the scripts on the online SQL Azure database.

Demo

```
<object style="height: 390px; width: 640px"><param name="movie"
value="http://www.youtube.com/v/2pQQ9u3G42E?version=3"><param name="allowFullScreen"
value="true"><param name="allowScriptAccess" value="always"><embed
src="http://www.youtube.com/v/2pQQ9u3G42E?version=3" type="application/x-shockwave-flash"
allowfullscreen="true" allowScriptAccess="always" width="640" height="390"></object>
```

Get Started

Try it yourself: [download CodeFluent Entities](#) and start building your application!

Additional resources

CodeFluent Entities blog	http://www.codefluententities.com/blog
CodeFluent Entities videos	http://www.youtube.com/softfluent
CodeFluent Entities forums	http://forums.softfluent.com
CodeFluent Entities documentation	http://www.codefluententities.com/documentation
CodeFluent Entities and Windows Azure BLOB storage	http://codefluententities.wordpress.com/2011/03/23/windows-azure-blob-storage-support/