Application with Multiple Databases

Multiple database services are common in the modern business environment. *Code On Time* generator has the capability to tie this data together in a single web application. This article will entail the steps required to set up such an application.

In this example, *DB1* holds the *Categories* and *Products* tables of an web-based order management system. *DB2* holds the *Suppliers* table used by the purchasing department. You can see the database schemas in the pictures below.

![Database Schemas](image)

Suppose that business requirements demand displaying vendor information next to the product name. We would like to add fields in *Products* to capture information from the *Supplier*, as well as allow access to information about *Suppliers*, all in the same application.

How do we overcome the physical separation of DB1 and DB2?
Let’s generate a Web Site Factory application from DB1. Run Code On Time Generator, create a new Web Site Factory project by the name of “MultiDB”, and press Create. Enter the connection string for DB1, enable reporting, change the theme to Social, and generate the application. You will see that two pages have been created for Categories and Products, respectively. We will need to add Suppliers to this web app as well.

*Code On Time Generator* does not support generation from multiple databases. Creating an application that handles different data sources will require a combined sample database that you can generate from. After the web app is created, you can change the connection strings to connect the remote data. In this example, it would be easiest to add the Suppliers table to DB1. Also, add SupplierID and SupplierCompanyName to the Products table. These fields, while not foreign keys in the database, will capture information from DB2 when we set them up as lookups.
Go back to *Code On Time* and select the project. On the project page, press *Refresh* option. Check *Products* controller and the new *Suppliers* table, and press *OK*. Confirm refresh, and regenerate the application.

When the page loads, you can see that *Suppliers* page has been added under the node *New Pages*. However, there are no suppliers to be found in this database. We will need to change the connection string for the *Suppliers* controller.
On the Products page we will also need to change the SupplierID field to a lookup, and use Supplier Company Name as its alias.

Switch to Code On Time, select the project name, press Settings, and select Web Server Configuration. In the Web.Config modification instructions textbox, add the following lines:

AppendChild: /configuration/connectionStrings

<add name="DB2" connectionString="Data Source=.;Initial Catalog=DB2;Integrated Security=True;" providerName="System.Data.SqlClient" />
Press Finish, and press Design. Navigate to the Suppliers controller and open its settings. Under Connection String Name, type “DB2”.

Press OK to save your changes. Under the Products controller, select SupplierID field. In the Lookup settings, change Items Style to “Lookup”, Items Data Controller to “Suppliers”, Data Value Field to “SupplierID” and Data Text Field to “CompanyName”, and New Data View to “createForm1”. In the Copy field, type:

SupplierCompanyName=CompanyName
This will ensure that SupplierID will lookup data from the Suppliers table of DB2, store the SupplierID to DB1, and copy the Company Name as well. Press OK to save. Switch to the data fields tab of SupplierID field, and change all the data fields to have an Alias of “SupplierCompanyName”.

One more change needs to be done. Select the SupplierCompanyName field, and switch to the Data Fields tab. Change all the data fields to be marked as “Hidden”.

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**Diagram Description:**

The diagram shows a typical user interface of a database management system. The interface includes sections for generating, browsing, and exiting. The main workflow focuses on updating data fields related to SupplierID and SupplierCompanyName. The steps involve setting up the lookup and storage of data, as well as modifying the data fields to be hidden.
Press Save to save changes, and generate the project. Go to the Products page, and create a new product. You can see that Supplier ID is now a lookup. When you click the lookup link, it will show you a list of Suppliers from DB2.

Select a Supplier and you will see that the Supplier Company Name will be displayed.