

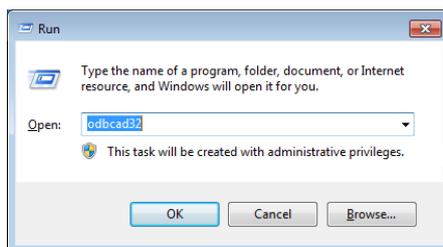
# HOWTO: Setup SQL Server Linked Server to MySQL

(Then add as a data source for Laserfiche Forms)

## 1. Configure a MySQL DSN

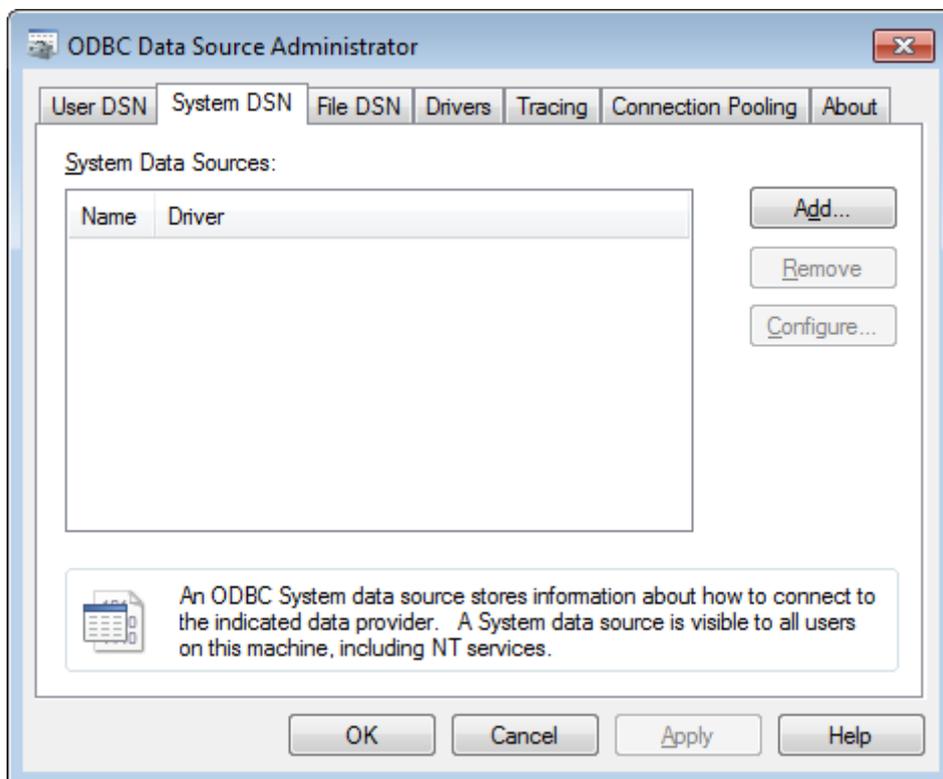
The first step is to configure a MySQL data source by running the ODBC Data Source Administrator. This step is technically entirely optional, but allows a simpler configuration in the SQL Server Linked Server settings. Instead of composing a complicated MySQL connection string, we can use a simple GUI application.

### Run odbcad32

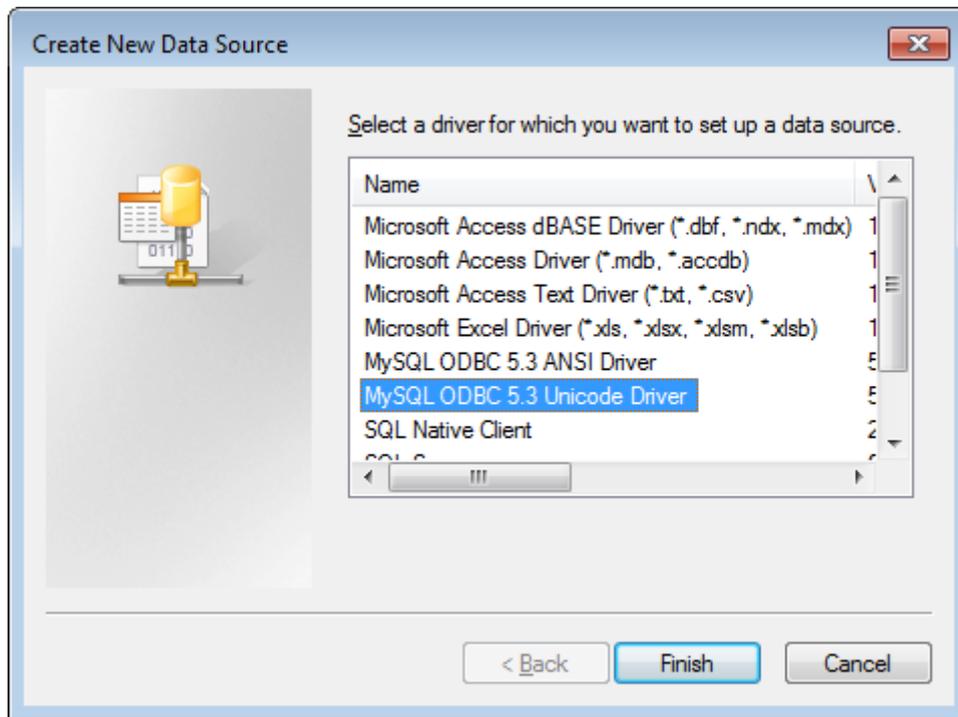


Either bring up a Run dialog box with Start→Run or WinKey+R. If you're using Windows Server 2008, use the Start Menu search box directly. In either OS, type in "odbcad32" and hit Enter.

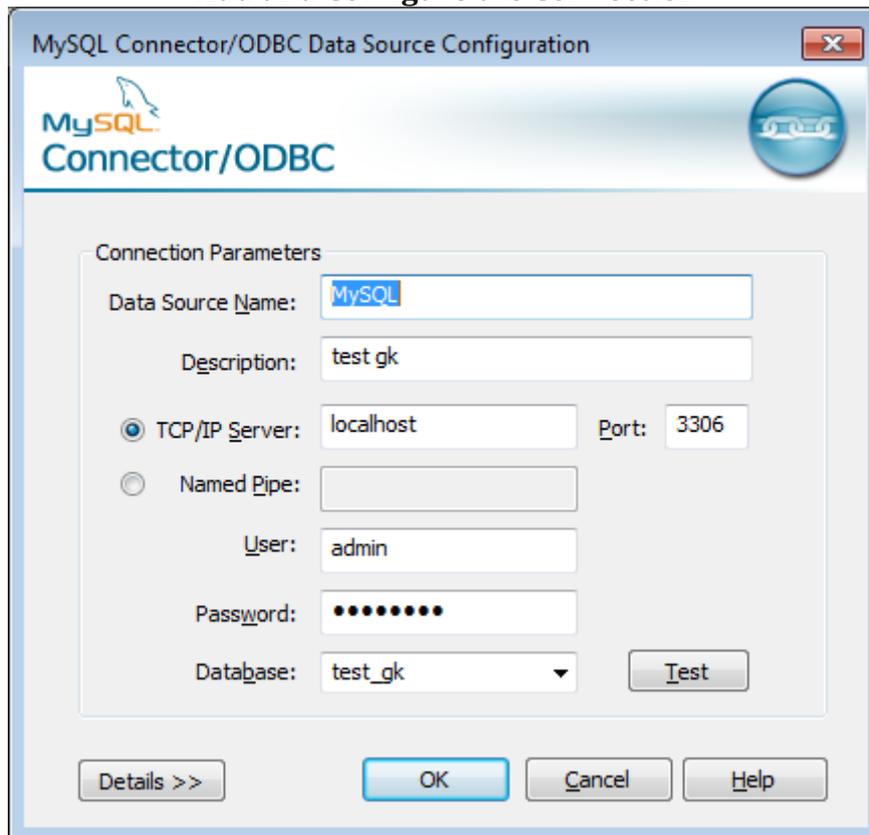
Select the System DSN tab to configure a data source for the entire system. If you only want to create the DSN for a specific user (such as your service account), use the User DSN tab. In either scenario, select the "Add..." button.



Scroll down in the Create New Data Source window and select "MySQL ODBC 3.53 Unicode Driver" and click "Finish".



### Add and Configure the Connection



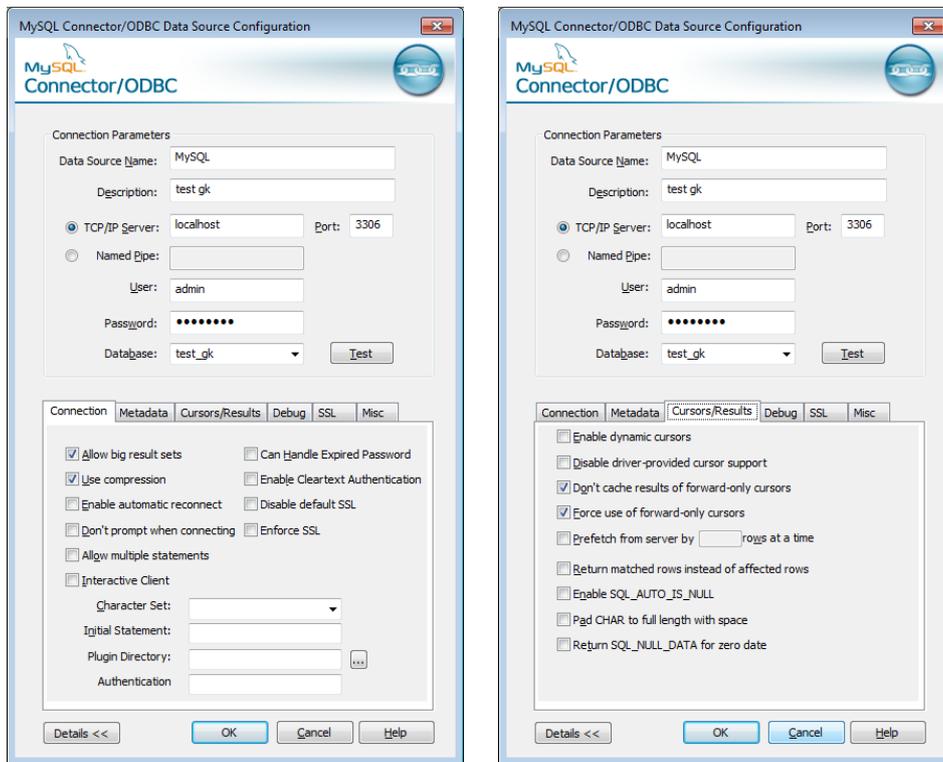
### MySQL Connector Login Settings

Once added, clicking the “Configure...” button will bring up the Connector/ODBC 3.53 Configure Data Source application. This is where you can specify all the connection settings for connecting SQL Server to MySQL. Select a Data Source Name – I typically name it after the application or database I’m connecting to. The Server, User, Password, and Database should all be obvious.

### Test ODBC Connection

After you’ve entered all the required parameters, click the “Test” button to ensure a connection can be made to the MySQL server.

These settings are the bare minimum required to connect MySQL and SQL Server via a linked server, but I like to specify additional options to optimize the connection between the servers.



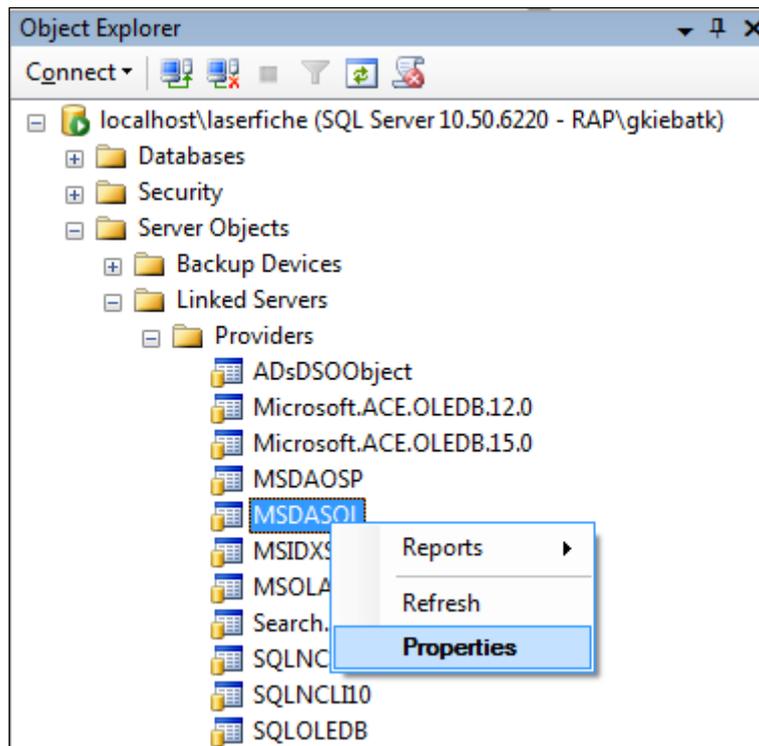
### MySQL Connector Advanced Settings

Select the Advanced Button and you'll be placed on the "Connection" sub-tab. Check the boxes labelled "Allow Big Set" and "Use Compression".

Next, switch to the "Cursors/Results" tab and select "Don't Cache Result of forward-only cursors)". This can actually be a performance penalty if you perform the same query multiple times to the same linked server. However my reason to connect to a SQL Server to MySQL, is to pull data into a single server, in which case, this option was perfectly suited. Also "Force Use Of Forward Only Cursors". When you're done setting all these options, select the "Ok" button.

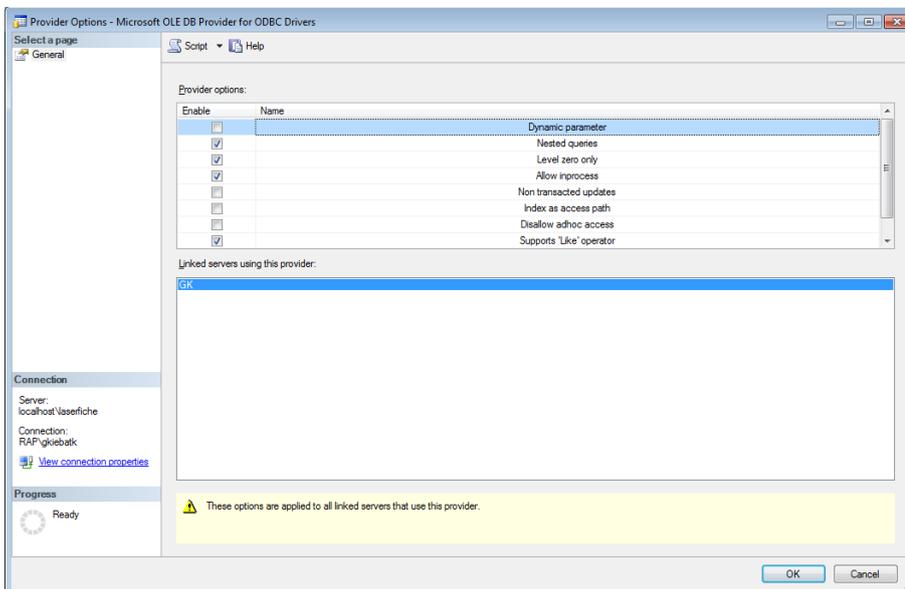
## 2. Configure Linked Server Provider

Adjusting the Linked Server Provider is simple, but it comes with a caveat: When adjusting a provider, you are adjusting it for all connections using that provider. I am not aware of any way to change these settings on a per-connection basis.



### Provider Properties

Drill down to Server Object → Linked Servers → Providers, right-click MSDASQL, and select “Properties”.



- Nested queries
- Level zero only
- Allow inprocess
- Supports 'Like' Operator

All other options should be unchecked.

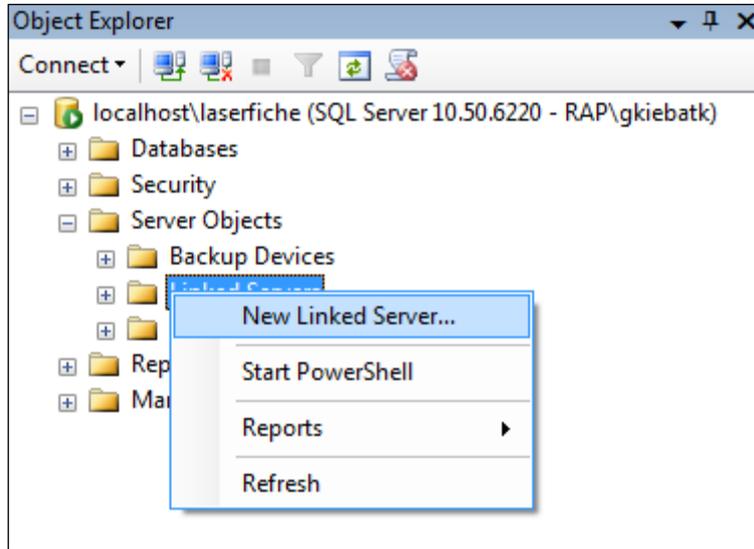
When done, click “OK”.

### Set Provider Options

The Provider Options for Microsoft OLE DB Provider for ODBC Drivers dialog box will open allowing you to configure several options. Ensure the above four options are checked:

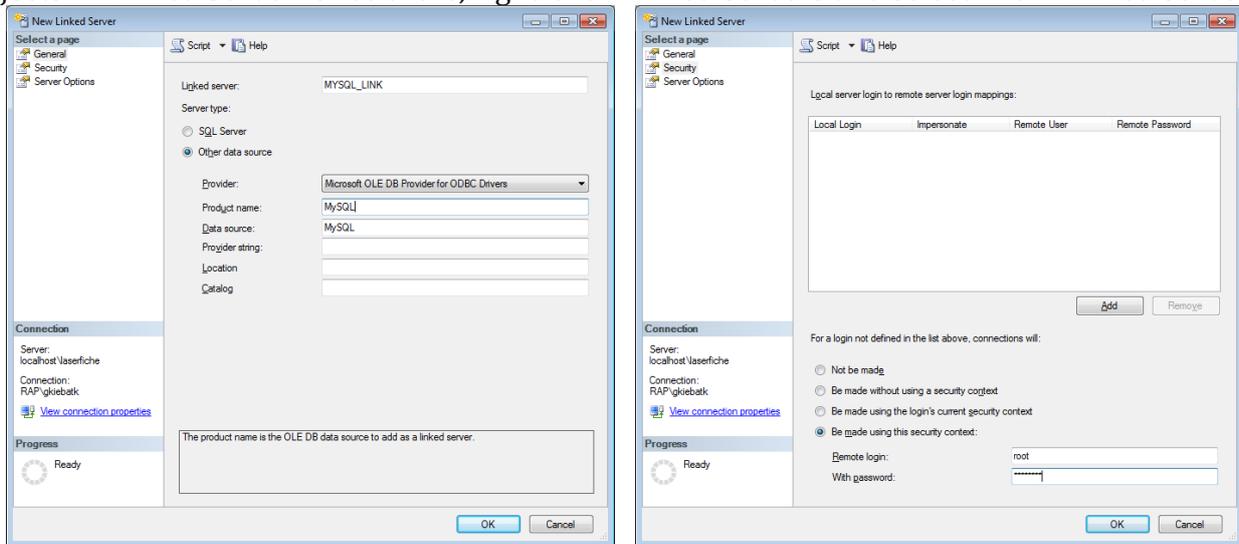
### 3. Create Linked Server to MySQL

The next step in our process is to create the actual MySQL Linked Server. Open Microsoft SQL Server Management Studio.



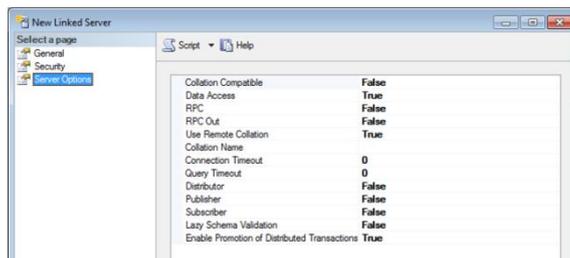
**Create a New Linked Server**

You should already have Linked Servers expanded in the Object Explorer tree. If not, find it in Server Objects → Linked Server. Once there, right-click Linked Servers and select “New Linked Server...”



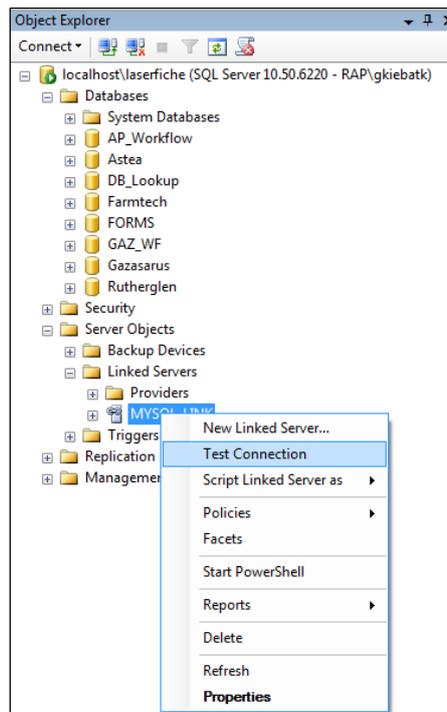
**New linked Server Settings – Security Settings**

Lastly, specify the Product name and Data source. The Product name doesn't matter so much as the Data source must match what you provided in the MySQL Connector/ODBC configuration. Use the authentication details for the MySQL connection. Press “OK” when complete.

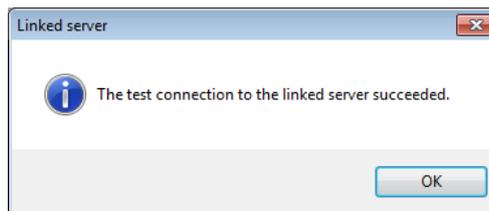


**Optional Settings for the Linked Server**

Ricoh click on the newly created Linked Server and Select Test Connection



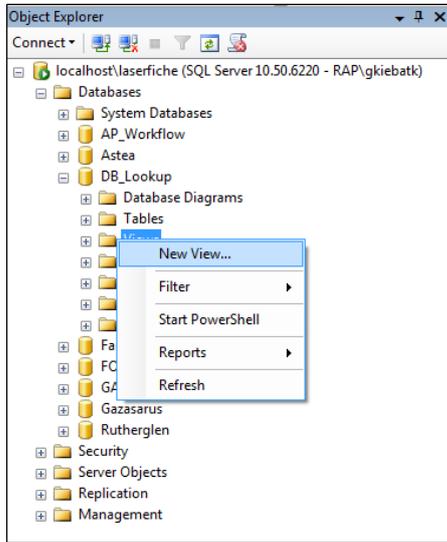
The connection test should succeed.



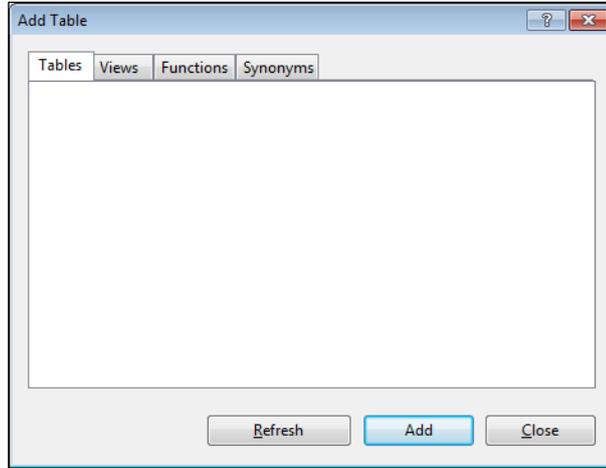
**Click OK**

## 4. Create view in MSSQL

Now, Select the database in MSSQL that you plan on using as a database source in Laserfiche Forms. Ricoh Click and select 'New View' then click close to the add table dialog. We will use SQL query to add what we need.



Add New View



Add Table dialog

---

### Examples of query of MYSQL tables

SELECT \*  
FROM MYSQL\_LINK...vendorprice , MYSQL\_LINK...vendorlookup

Column	Alias	Table	Output	Sort Type	Sort Order	Filter	Or...	Or...	Or...
ABN		vendorpric...	<input checked="" type="checkbox"/>						
[Supplier Total]		vendorpric...	<input checked="" type="checkbox"/>						
ABN	Expr1	vendorloo...	<input checked="" type="checkbox"/>						
Supplier_Name		vendorloo...	<input checked="" type="checkbox"/>						

```

SELECT *
FROM MYSQL_LINK...vendorprice , MYSQL_LINK...vendorlookup
    
```

ABN	Supplier Total	Expr1	Supplier_Name
12345678456	200	12345678456	XYZ Phone Servi...
12345678456	200	22456793459	ACME Truck Pty ...
12345678456	200	32456876900	Runners R US Pt...
12345678456	200	44567389764	ABC Pty Ltd
12345678456	200	99546574834	More Doors T/A ...

## Example of query of MySQL and Join

```
SELECT vendorprice_1.ABN, vendorprice_1.[Supplier Total], vendorlookup_1.Supplier_Name
FROM MySQL_LINK...vendorprice AS vendorprice_1 INNER JOIN
MySQL_LINK...vendorlookup AS vendorlookup_1 ON vendorprice_1.ABN = vendorlookup_1.ABN
```

The screenshot shows a SQL Table View window titled "3897RLASERFICHE... SQL Table View". It displays a query and its results. The query is:

```
SELECT vendorprice_1.ABN, vendorprice_1.[Supplier Total], vendorlookup_1.Supplier_Name
FROM MySQL_LINK...vendorprice AS vendorprice_1 INNER JOIN
MySQL_LINK...vendorlookup AS vendorlookup_1 ON vendorprice_1.ABN = vendorlookup_1.ABN
```

The results table is as follows:

ABN	Supplier Total	Supplier_Name
12345678456	200	XYZ Phone Servi...
22456793459	300	ACME Truck Pty ...
32456876900	100	Runners R US Pt...
44567389764	400	ABC Pty Ltd
99546574834	500	More Doors T/A ...

## Example of query of MySQL and MSSQL and Join

```
SELECT vendorprice_1.ABN, vendorprice_1.[Supplier Total], vendorlookup_1.Supplier_Name, AP_Workflow.dbo.VendorEmail.[Email ]
FROM MySQL_LINK...vendorprice AS vendorprice_1 INNER JOIN
MySQL_LINK...vendorlookup AS vendorlookup_1 ON vendorprice_1.ABN = vendorlookup_1.ABN INNER JOIN
AP_Workflow.dbo.VendorEmail ON vendorprice_1.ABN = AP_Workflow.dbo.VendorEmail.ABN
```

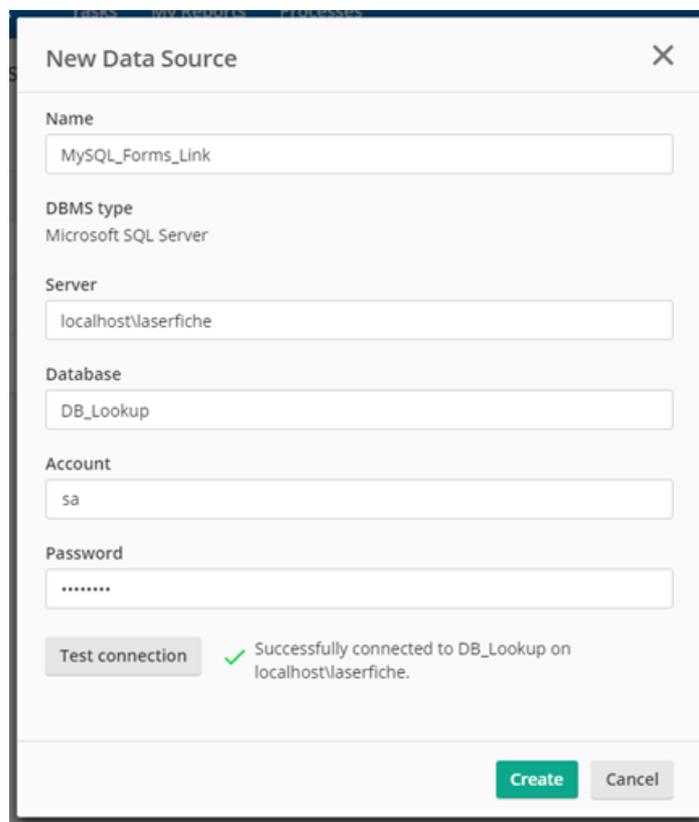
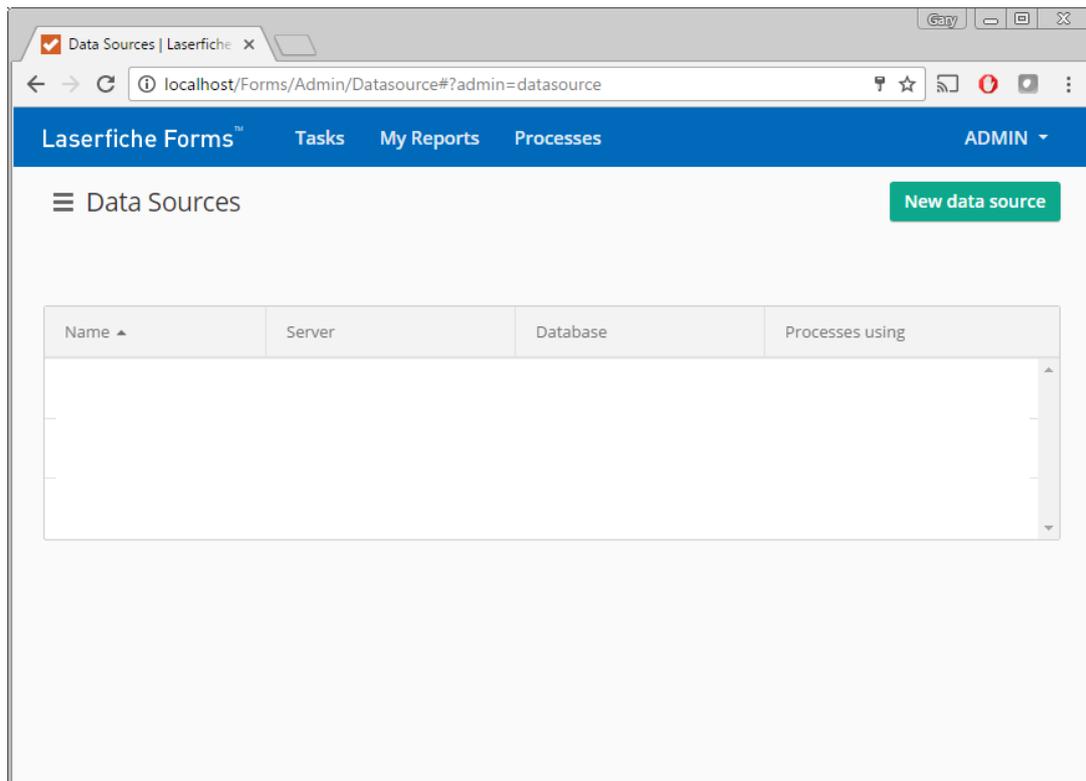
The screenshot shows a SQL Table View window titled "3897RLASERFICH...& SQL Table View". It displays a query and its results. The query is:

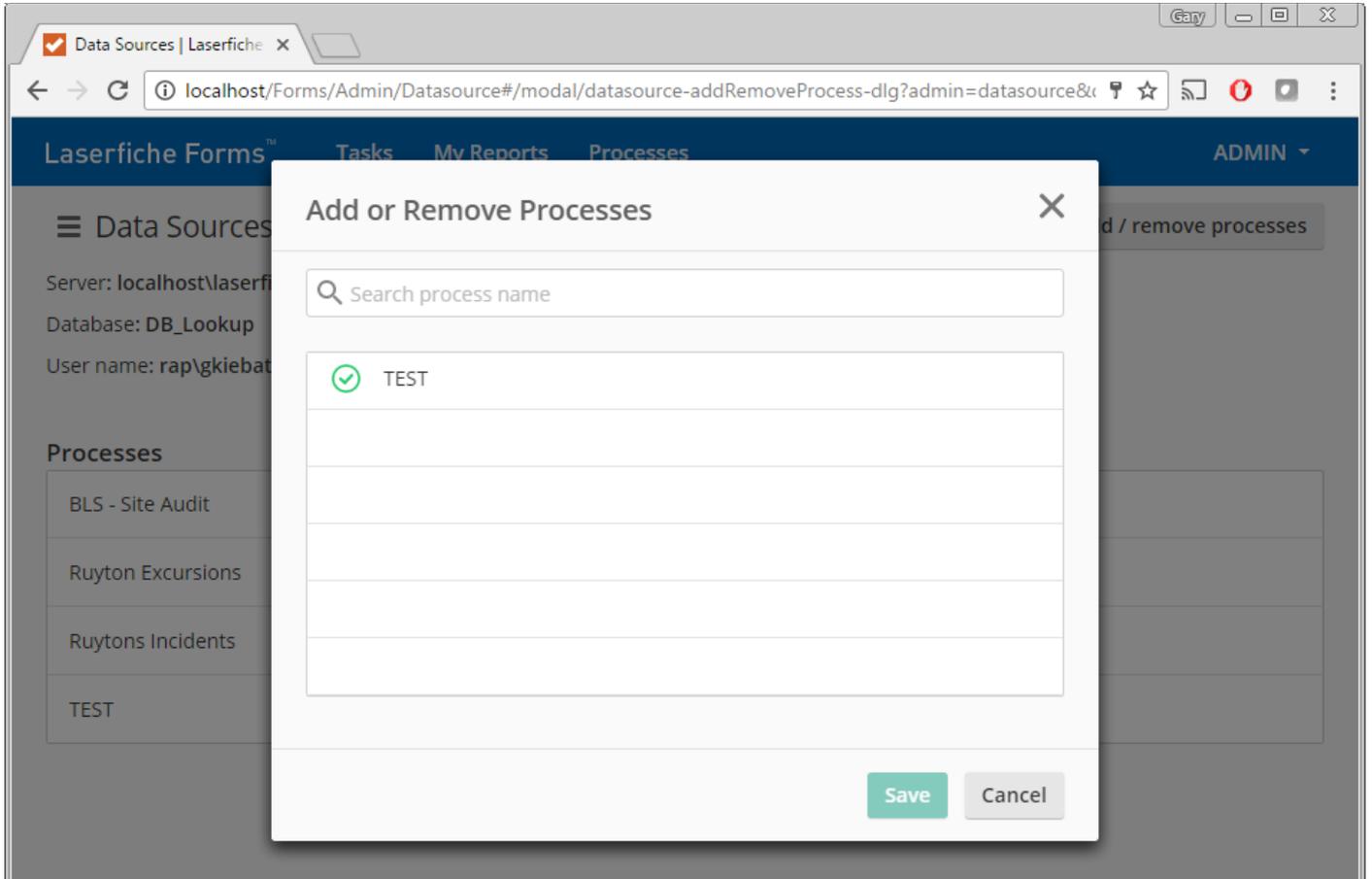
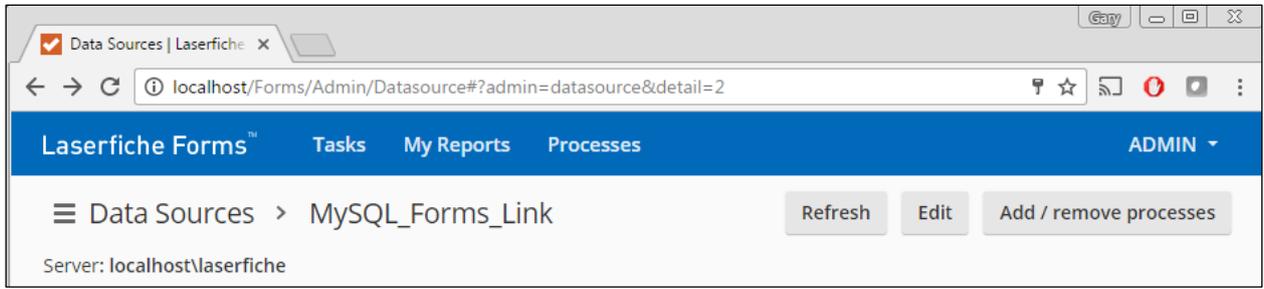
```
SELECT vendorprice_1.ABN, vendorprice_1.[Supplier Total], vendorlookup_1.Supplier_Name, AP_Workflow.dbo.VendorEmail.[Email ]
FROM MySQL_LINK...vendorprice AS vendorprice_1 INNER JOIN
MySQL_LINK...vendorlookup AS vendorlookup_1 ON vendorprice_1.ABN = vendorlookup_1.ABN INNER JOIN
AP_Workflow.dbo.VendorEmail ON vendorprice_1.ABN = AP_Workflow.dbo.VendorEmail.ABN
```

The results table is as follows:

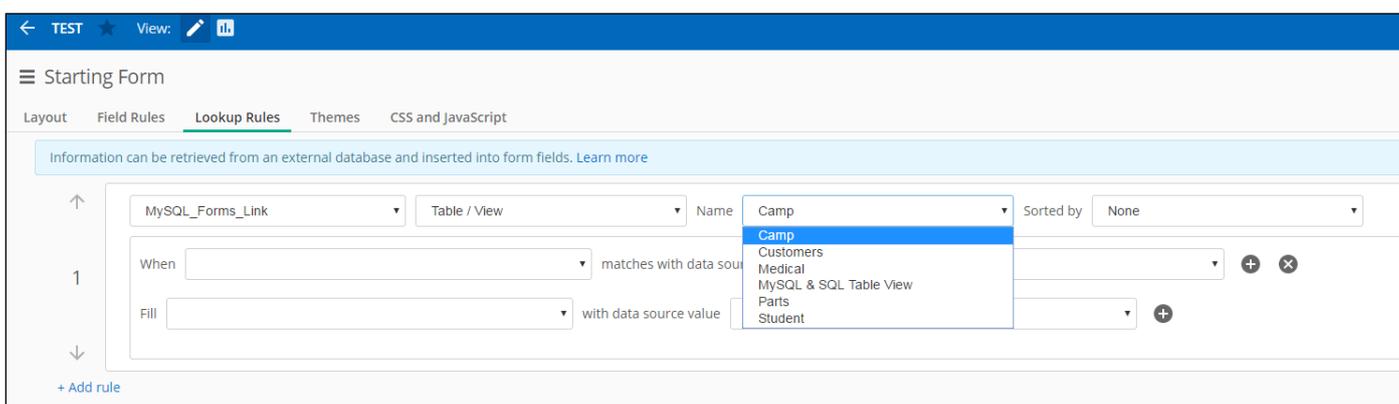
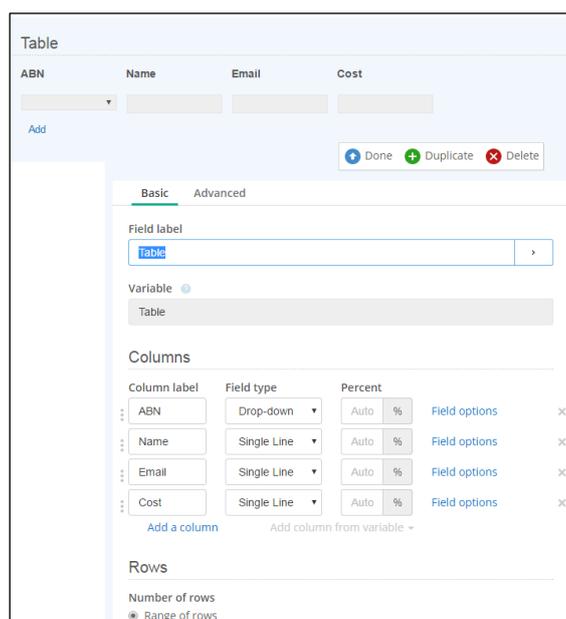
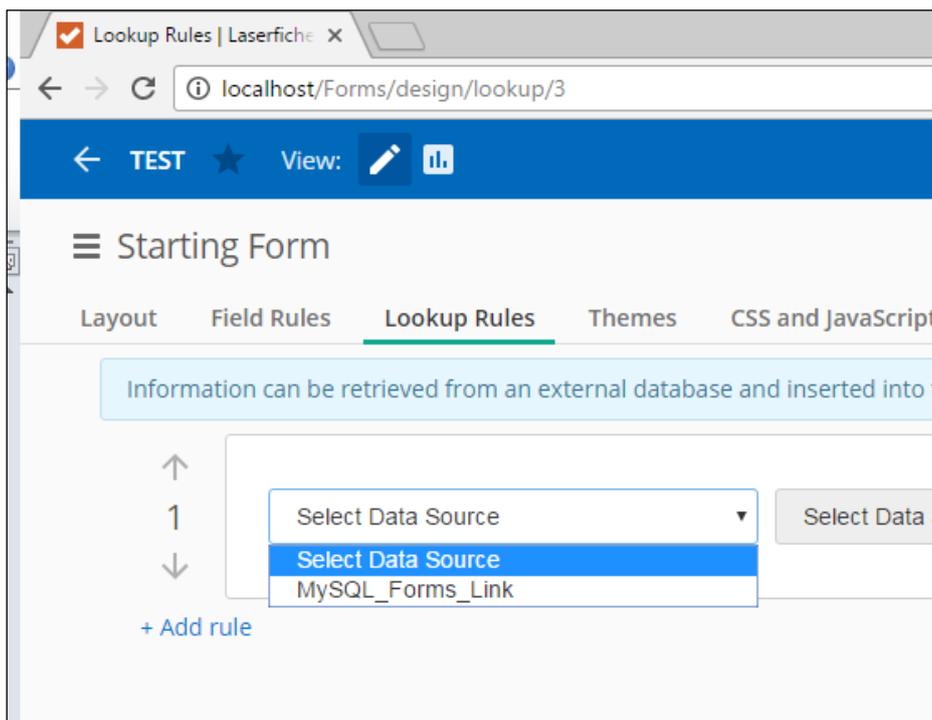
ABN	Supplier Total	Supplier_Name	Email
12345678456	200	XYZ Phone Servi...	Gary@rich.com
22456793459	300	ACME Truck Pty ...	David@rich.com
32456876900	100	Runners R US Pt...	Merv@rich.com

## 5. Add view as a data source in Laserfiche Forms





## 6. Configure Form with Data Source



Starting Form Save

Layout Field Rules **Lookup Rules** Themes CSS and JavaScript

Information can be retrieved from an external database and inserted into form fields. [Learn more](#)

1 MySQL\_Forms\_Link Table / View Name MySQL & SQL Table View Sorted by None

+ Add condition

Fill Table>ABN with data source value ABN as new rows

2 MySQL\_Forms\_Link Table / View Name MySQL & SQL Table View Sorted by None

When Table>ABN matches with data source column ABN

Fill Table>Cost with data source value Supplier Total as new rows

Fill Table>Email with data source value Email as new rows

Fill Table>Name with data source value Supplier\_Name as new rows

### Test MySQL Lookup

Table

ABN	Name	Email	Cost
<input type="text" value="12345678456"/> <ul style="list-style-type: none"> <li>12345678456</li> <li>22456793459</li> <li>32456876900</li> <li>44567389764</li> <li>99546574834</li> </ul>	<input type="text"/>	<input type="text"/>	<input type="text"/>

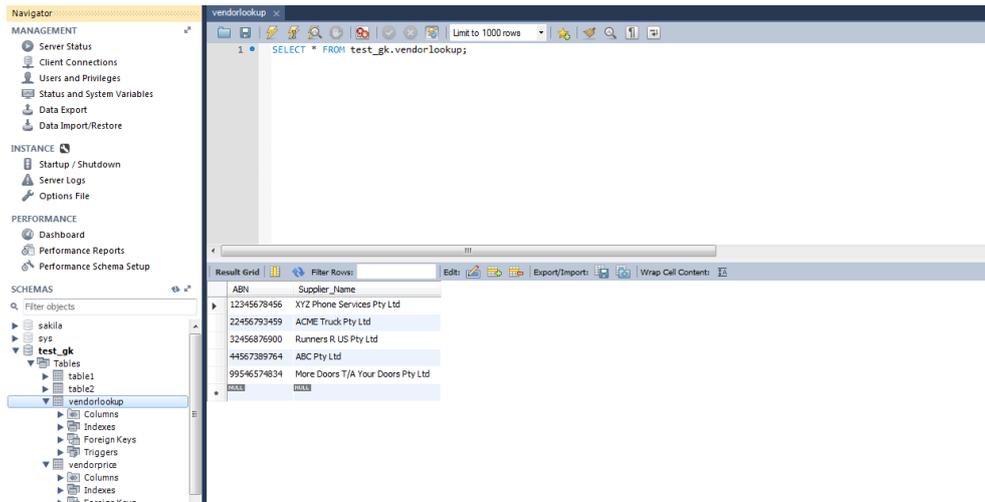
### Test MySQL Lookup

Table

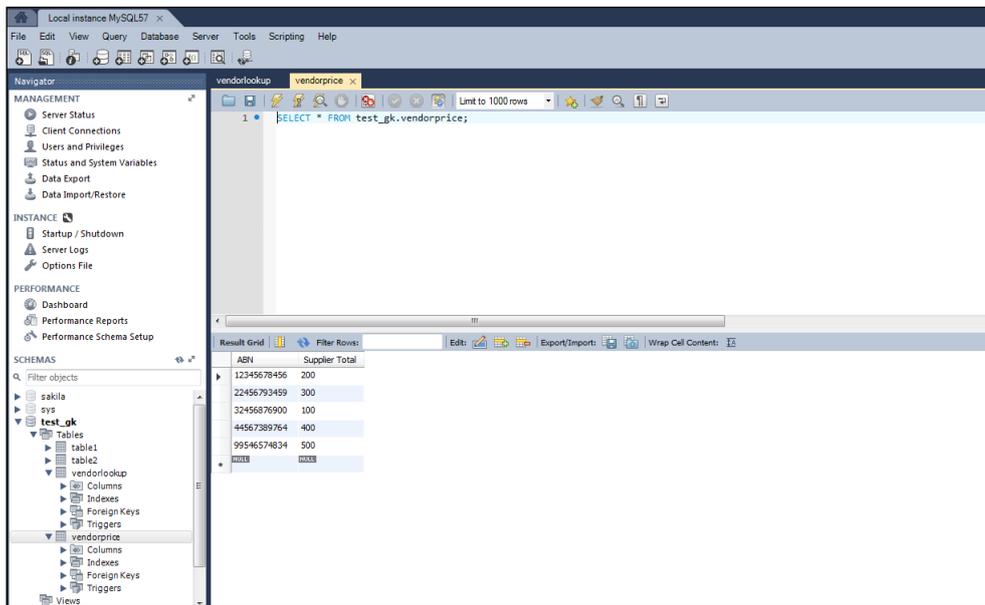
ABN	Name	Email	Cost
<input type="text" value="12345678456"/>	XYZ Phone Services Pty Ltd	Gary@ricoh.com	200

Add

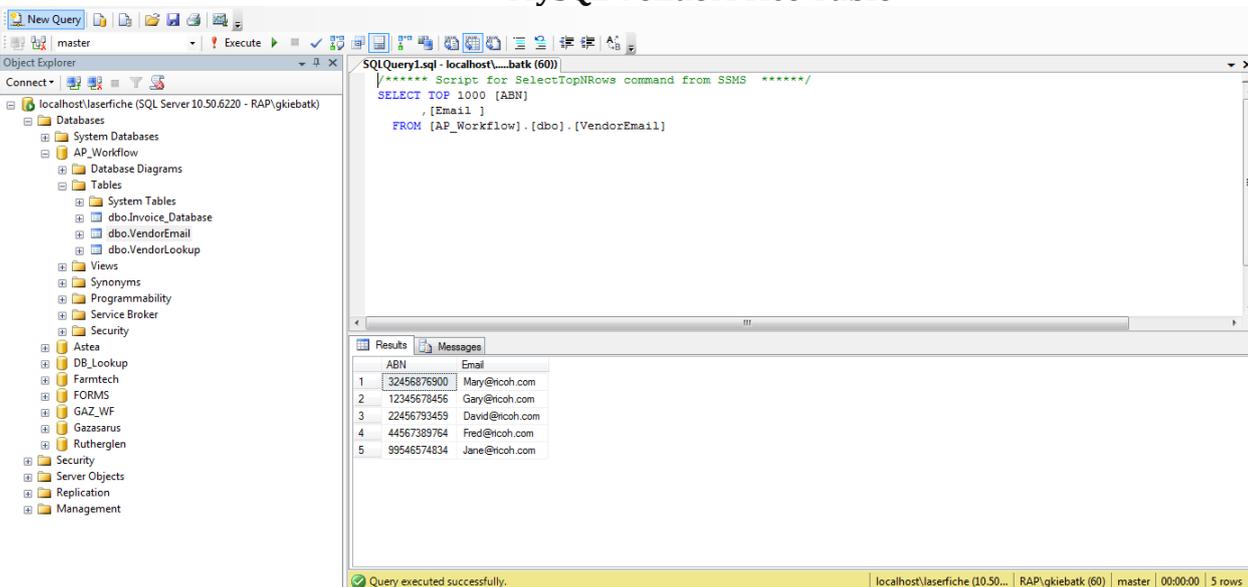
# 7. Examples of databases queried



MySQL VendorLookup Table



MySQL VendorPrice Table



MSSQL AP\_Workflow - Vendor Email Table