2011



СООКВООК

Sending an Email in Response to Actions

Send an Email

Let's expand the capabilities of the context menu in Customers grid view. We will add a new option, seen below, which will execute a custom business rule and send an email.

Customers - Windows Internet Expl	orer									x
G V The http://localhost:491	0/SendEmail/Pages/Customers.a	spx		▼ 🗟 49	× 🚼	Google				<mark>ب</mark> ۹
🚖 Favorites 🏾 🏉 Customers				6	• 🔊 • [- 🖨	.▼ <u>P</u> age	▼ <u>Safety</u>	▼ Tools ▼ (? • "
History Permalink				Welcome admin , Toda	y is Thursday	, Februa	ry 10, 2011	My Accou	int Logout He	lp 🔺
🎁 MyCompany										
Home Customers Temployees	Categories Customer Der	mographics Regio	n • Reports •	Membership					Site Actions	
Home > Cu	istomers DMERS									
Summary This is a	ist of customers.									E
Customer#	k Find 👂 🖃 New Cus	tomers 🛛 🗾 Edit	🗙 Delete 🛛 Acti	ons • Report •				View: C	ustomers 🔹	
Company Name Customer	# Company Name	Contact Name	Contact Title	Address	City	Region	Postal Code	Country	Phone	
Ana Trujillo Emparedados y helados ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin	n/a	12209	Germany	030-0074321	
Contact Name Ana Trujillo Select	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.	n/a	05021	Mexico	(5) 555-4729	
Contact Title Zelati Owner X Delete	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.	n/a	05023	Mexico	(5) 555-3932	
Address Duplicate	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London	n/a	WA1 1DP	UK	(171) 555- 7788	
2222 New Send Email	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå	n/a	S-958 22	Sweden	0921-12 34 65	
About This page allows BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim	n/a	68306	Germany	0621-08460	
customers management. BLONP See Also	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg	n/a	67000	France	88.60.15.31	
Orders BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid	n/a	28023	Spain	(91) 555 22 82	
Customer Demo	D!	· ·	^	40 des Bernderen	M	- /-	10000			-
Javascript:				😽 Internet P	rotected Mo	de: On		4 <u>0</u>	• • 100%	•i

Run Code On Time Generator, select the name of the project you wish to edit, and press Design. In the list of controllers, select Customers. Switch to the Action Groups tab, and select ag1 with scope of *Grid*. This is the group of actions that reside in the grid view context menu. Switch to the Actions tab, and you will see the actions that are available on the context menu.

Data Cont	rollers - Cod	e OnTime		-		- 2	1.1	-				0 - 2
	DE AF								YouT h	ube Bk	g New	sgroup
eview and m	odify propert	ies of the proje	act items and select <i>Class</i>	to return to c	ode generat	or.				cipii/iiiii	redución	increoin
roject Des	ligner	ies of the proje		toretain to e	oue generat							exit
Home > C	Controller: Cus	tomers > Actio	n Group: ag1									
lction Group	Actions											
is is a list o	f data control	er actions. Act	ions are available in the s	pecified UI so	ope of the gr	roup if all "when	." conditions are	e met.				
Quick Find	Q	New - P	review							Viev	v: Actio	ns 🔹
mmand me	Command Argument	Header Text	When Last Command Name	d When Last Argument	Command	When Key Selected	When HRef (Regex)	When View (Regex)	Wh (Re	ien Tag igex)	Roles	Scope
elect	editForm1	n/a	n/a	n/a		n/a	n/a	n/a	n/a	3	n/a	Grid
lit	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	3	n/a	Grid
elete	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	1	n/a	Grid
/a	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	3	n/a	Grid
uplicate	createForm	1 n/a	n/a	n/a		n/a	n/a	n/a	n/a	3	n/a	Grid
ew	grid1	n/a	n/a	n/a		n/a	n/a	n/a	n/a	3	n/a	Grid
									Showin	g 1-6 of 6	items F	₹efresh
All customi	zed project se	ttings are stor	ed in * .Log.xml files loca	ated in the roo	t of your pro	oject folder.						
011 Code (OnTime LLC. A	ll rights reserv	ed.									
-	-		Bólido Comidas M	lartín							(91) 55	5.22
		BOLID •	preparadas S	ommer	Owner	C/ Araquil,	67 Madri	n/a	28023	spain	82	
		Edit	Bon app' Li	aurence ebihan	Owner	12, rue des Bouchers	Marse	i lle n/a	13008	France	91.24.4	15.40
	×	Delete	Bottom-Dollar E Markets Li	lizabeth ncoln	Accounting Manager	23 Tsawass	en Blvd. Tsawa	assen BC	T2F 8M4	Canada	(604) 55 4729	55-
		Duplicate	Page: 1 2 3 4 5 6	78910 1	lext »	Items	per page: 10, 1	5, 20, 25 Sho	wing 1-1	10 of 91 i	tems Re	fresh
		New										

On the action bar, press *New* / *New Action*. The *Command Name* will be "Custom", and the *Command Argument* will be "SendEmail", with *Header Text* of "Send Email".

Project Designer		exit
Home > Controller: Customers > Action Group: ag1		
Action Group Actions		
Please fill this form and dick OK button to create a new action record. Click Cancel to return to	to the previous screen.	
	View: New A	ction 🔹
* - indicates a required field	ОК Са	ancel
General	Command Name	
Key action properties.	Custom 👻	
If command name is not specified then the action is presented as a break line in the acton group popup menu.	Command Argument SendEmail	
	Header Text	
	Causes Validation *	
Conditions	When Last Command Name	

Now, go back to the settings for the *Customers* controller. Edit, and in the *Handler* field, insert "CustomersBusinessRules".

Project Designer	exit
Home > Controller: Customers	
Controller Commands Fields Views Categories Data Fields Action Groups	Actions
Please review data controller information below. Click Edit to change this record, click Delete i	o delete the record, or click Cancel/Close to return back.
Record 🝷	View: Controller
General Name of data controller.	Controller Name * Customers Include in code generation * Yes
Miscellaneous Specify conflict detection strategy and optional connection string name. Specify a connection string name only if the controller is working with the database other than the one selected for this project.	Conflict Detection * Overwrite Changes Compare All Values Connection String Name
Business Rules Specify the name of the business rules class that can be extended to respond to the controller actions.	Handler CustomersBusinessRules
Annotations Specify if free form notes and attachments can be assigned any data row by end-users at run-time.	Allow Annotations

Save your changes, exit the *Designer*, and generate the application. When the web page appears, navigate to *Customers*. When you activate the dropdown next to a row, you can see the new "Send Email" option. When pressed, the row will be selected, but otherwise nothing else will happen.

🏉 Customers - Windows Ir	nternet Explor	er											x
😋 🔵 🗢 🙋 http://lo	ocalhost:34506	/SendEmail/Pages/G	Customers.asp	X			🔻 🗟 4	× 😽	Google				۰ م
🚖 Favorites 🛛 🌈 Custo	omers						6	- 🔊 -	-	▼ <u>P</u> age		· ▼ T <u>o</u> ols ▼ (? ▼ "
History Permalink						Welco	me admin , Today	is Wednesday	, Februa	ry 09, 2011	My Accou	unt Logout He	elp 🔺
瓣 MyCompany													
Home Customers -	Employees -	Categories	Customer Demog	graphics Region	n • Reports	Membersh	ip					Site Actions	
	Home > Cust	omers ners											
Summary	This is a list	of customers.											E
Customer#	Quick	Find 🔎 🗉	Rew Custom	iers 🛛 😺 Edit	🗙 Delete	Actions -	Report -				View: C	ustomers 🔹	
Company Name	Customer#	Company Name	C	ontact Name	Contact Title	Address		City	Region	Postal	Country	Phone	
Antonio Moreno Taquería Contact Name	ALFKI	Alfreds Futterkiste	м	laria Anders	Sales Representative	Obere St	r. 57	Berlin	n/a	12209	Germany	030-0074321	
Antonio Moreno Contact Title	ANATR	Ana Trujillo Empareda helados	ados y A	na Trujillo	Owner	Avda. de 2222	la Constitución	México D.F.	n/a	05021	Mexico	(5) 555-4729	
Owner Address	ANTON -	Antonio Moreno Taqu	uería A	ntonio Moreno	Owner	Matadero	os 2312	México D.F.	n/a	05023	Mexico	(5) 555-3932	
Mataderos 2312	Select Edit	Around the Horn	П	homas Hardy	Sales Representative	120 Hand	over Sq.	London	n/a	WA1 1DP	UK	(171) 555- 7788	
About	Delete	Berglunds snabbköp	c	hristina Berglund	Order Administra	ator Berguvsv	rägen 8	Luleå	n/a	S-958 22	Sweden	0921-12 34 65	
customers managem	Duplicate	Blauer See Delikatess	sen H	anna Moos	Sales Representative	Forsterst	r. 57	Mannheim	n/a	68306	Germany	0621-08460	
See Also Orders	Send Email	Blondesddsl père et f	fils Fi	rédérique iteaux	Marketing Mana	ger 24, place	Kléber	Strasbourg	n/a	67000	France	88.60.15.31	
Customer Demo Order Details	BOLID	Bólido Comidas prepa	aradas M	lartín Sommer	Owner	C/ Araqu	il, 67	Madrid	n/a	28023	Spain	(91) 555 22 82	•
javascript:	DONAD	P!			<u></u>		Internet	Protected Mo	ode: On	10000	-	▼ € 100%	▼

Let's add emailing functionality by opening the project in *Microsoft Visual Studio* or *Visual Web Developer*. Open the file that has been created, under *App_Code/Rules/CustomersBusinessRules.vb(cs)*. The following code will send an email to the selected customer.

VB.Net

```
Imports MyCompany.Data
Imports System
Imports System.Collections.Generic
Imports System.Data
Imports System.Linq
Imports System.Net.Mail
Imports System.Net
Namespace MyCompany.Rules
    Partial Public Class CustomersBusinessRules
       Inherits MyCompany.Data.BusinessRules
        <ControllerAction("Customers", "Custom", "SendEmail")> _
        Sub SendAnEmailToACustomer(ByVal companyName As String, ByVal contactName As String, _
                                   ByVal customerID As String)
            Dim message As MailMessage = New MailMessage()
            message.From = New MailAddress("SENDER@gmail.com", "web App Admin")
            ' prepare smtp client
            Dim smtp As SmtpClient = New SmtpClient("smtp.gmail.com", 587)
            smtp.EnableSsl = True
            smtp.UseDefaultCredentials = False
            smtp.Credentials = New NetworkCredential("SENDER@gmail.com", "PASSWORD")
```

```
' compose and send an email message
' use CustomerID to find the recipient's email
Dim sendTo As String = "recipient@contoso.com"' fake email address of a customer
message.To.Add(sendTo)
message.Subject = String.Format("Hello {0} at {1}.", contactName, companyName)
message.Body = "Hello there!"
smtp.Send(message)
Result.ShowAlert("Email has been sent.")
End Sub
End Class
```

```
End Namespace
```

<u>C#</u>

```
using System;
using System.Data;
using System.Collections.Generic;
using System.Linq;
using MyCompany.Data;
using System.Net.Mail;
using System.Net;
namespace MyCompany.Rules
ſ
    public partial class CustomersBusinessRules : MyCompany.Data.BusinessRules
        [ControllerAction("Customers", "Custom", "SendEmail")]
        public void SendAnEmailToACustomer(string companyName, string contactName, string customerId)
        {
            MailMessage message = new MailMessage();
            message.From = new MailAddress("SENDER@gmail.com", "Web App Admin");
            // prepare smtp client
            SmtpClient smtp = new SmtpClient("smtp.gmail.com", 587);
            smtp.EnableSs1 = true;
            smtp.UseDefaultCredentials = false;
            smtp.Credentials = new NetworkCredential("SENDER@gmail.com", "PASSWORD");
            // compose and send an email message
            // use CustomerID to find the recipient's email
            string sendTo = "recipient@contoso.com"; // fake email address of a customer
            message.To.Add(sendTo);
            message.Subject = String.Format("Hello {0} at {1}.", contactName, companyName);
            message.Body = "Hello there!";
            smtp.Send(message);
            Result.ShowAlert("Email has been sent.");
       }
   }
}
```

The business rules class shows how to handle the action by sending an email from an existing Gmail account to the selected recipient. Notice that the order of parameters in the business rule method is arbitrary. You can list every single field available in client-side view or limit the list of arguments to only those that are really needed to compose an email.

Now, when you select the *Send Email* action in the context menu of the grid view, an email will be sent to the employee email address from the email account specified under *Web App Admin* alias.

🏉 Customers - Windows Ir	nternet Explor	rer									23
🔇 🔾 🗢 🙋 http://lo	ocalhost:4910/	/SendEmail/Pages/Customers.a	spx		▼	• × 猪	Google			م	· •
🙀 Favorites 🛛 🏉 Custo	omers				6	• 🔊 •	- 🖶	👻 Page	▼ Safety	🔹 Tools 👻 🔞	• *
History Permalink					Welcome admin, Tod	ay is Thursday	, Februa	ary 10, 2011	. My Accou	unt Logout Help	-
í MyCompany											
Home Customers -	Employees 🔻	Categories -		arts •	Membership					Site Actions -	
	Home > Cust	tomers mers	om webpage								
Summary	This is a list	t of customers.	Email has been se	nt.							
Customer# ANATR	Quick	Find P							View:	ustomers 🔹	
Company Name	Customer#	Company Name	0	K	Address	City	Region	Postal Code	Country	Phone	Ε
Ana Trujillo Emparedados y helados	ALFKI	Alfreds Futterkiste	L	Representative	Obere Str. 57	Berlin	n/a	12209	Germany	030-0074321	
Contact Name	ANIATO	Ana Trujillo Emparedados y	Ana Trutilla	Owner	Avda. de la Constitución	México	n/2	05021	Maxica	(5) 555 4700	
Ana Trujilo	ANATK	helados	Ana mujilo	Owner	2222	D.F.	nja	03021	MEXICO	(3) 333-4729	
Owner	ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.	n/a	05023	Mexico	(5) 555-3932	
Address Avda. de la Constitución	AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London	n/a	WA1 1DP	UK	(171) 555- 7788	
2222	BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå	n/a	S-958 22	Sweden	0921-12 34 65	
About This page allows	BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim	n/a	68306	Germany	0621-08460	
customers management.	BLONP	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg	n/a	67000	France	88.60.15.31	
Orders	BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid	n/a	28023	Spain	(91) 555 22 82	
Customer Demo	DONIAD	Des seal		0		Managella	- 1-	10000		01 04 45 40	-
					😜 Internet	Protected Mo	de: On		-	▼ € 100% ▼	•

Follow the same pattern to implement any other actions that must affect a single record selected by a web application user.

You may explore the possibility of adding custom actions into other action groups.

For example, action group with the scope "Form" will present an action as a button.

Action with the scope "Action Bar" will present an action as a menu option on the action bar of a view.

Send an Email to Multiple Recipients

If you enable selection of multiple records then you can send a customized email to the corresponding recipients.

To do this, open *Code On Time Generator* and click on the project name. Press *Next* until you reach the *Business Logic Layer* page. Activate the checkbox next to "Generate business logic layer".

Business Logic Layer									
A business logic layer is a collection of data controllers representing entities of the logical domain model of your application. Business objects represent a denormalized view of data suitable for display in user interface and coding of business rules. All possible relationships are discovered automatically for each database table through the available foreign keys. Optional discovery depth can limit the number of fields in objects. Advanced Options:									
Cenerate a shared business rules dass to implement global logging of actions executed by data controllers of your application.									
Include database views as read-only data controllers for reporting and customization.									
Use custom discovery depth, labeling expressions, field exclusion rules, table keys, and table field mapping to compose business objects.									
Senerate business logic layer code objects for this application for use in business rules and custom user interface forms.									
You can create object instances by calling <i>data selection</i> methods of object factories, manipulate object properties, <i>insert, update</i> , and <i>delete</i> objects. All objects of business logic layer are designed to support <i>data binding</i> with ObjectDataSource component. Full support is provided for paging, sorting, filtering, and editing of records of any size with maximum flexibility and minimal database interaction. Business layer objects are provided with methods that allow to create. read. update , and delete database information. Please specify the method names.									
Create method to insert a record in a database table:									
Insert									
Read method to retrieve all records that match specified filtering parameters: Select									
Read method to retrieve a single record matched to a primary key value: SelectSingle									
Cancel Back Next									

Continue pressing Next until you reach the Data Controllers page, and press "Start Designer".

From the list of All Controllers, select the Customers controller.

Switch to the Action Groups tab, and select ag5. On the action bar, press New | New Action.

Leave all the settings blank except for the *Roles* field, which *will* be "Administrators", and save. This will create a "break" line in the list of actions.

Notice that if the user is not in the role of "Administrators" then the "break" line will not be displayed in the menu.

Project Designer		exit
Home > Controller: Customers > Action Group: ag5		
Action Group Actions		
Please fill this form and click OK button to create a new action record. Click Cancel to return to the	previous screen.	
	View: New Acti	ion 🔻
* - indicates a required field	ОК Салс	cel
General Key action properties. If command name is not specified then the action is presented as a break line in the acton group popula menu.	Command Name N/A Command Argument	
	Header Text Causes Validation * Yes •	
Conditions Conditions control action availability in the user interface. Conditions <i>When Last Command Name</i> and <i>When Last Command Argument</i> are compared with the last executed command. Condition <i>When Key Selected</i> is true if there is a selected record (row). Conditions <i>When HRef, When View,</i> and <i>When Tag</i> are regular expressions that must positively match the browser window HRef (current page URL), the view ID (grid 1, editForm 1, etc.), or the data view extender tag accordingly. If you would like to have a negative match then put "false:" without double quotes in front of the expression. The data view extender tag can be specified on the data view of the page in Designer. Return to the designer home and select <i>All Pages,</i> dick on the page and choose <i>Data Views</i> tab.	When Last Command Name N/A When Last Command Argument When Key Selected N/A When HRef (Regex) When View (Regex) When Tag (Regex) When Client Script (JavaScript)	
Presentation Specify action presentation properties.	Description Confirmation Css Class	
Security List roles allowed to execute this action. Role check is performed on the server and precedes the action conditions.	Roles Administrators	

Create another action. This action will have a *Command Name* of "Custom", *Command Argument* of "NotifySelectedCustomers", and *Header Text* of "Notify".

Project Designer	ex
G Home > Controller: Customers > Action Group: ag5	
Action Group Actions	
Please fill this form and click OK button to create a new action record. Click Cancel to return to the	previous screen.
	View: New Action
* - indicates a required field	OK Cancel
General Key action properties. If command name is not specified then the action is presented as a break line in the acton group popup menu.	Command Name Custom Command Argument NotifySelectedCustomers Header Text Notify Causes Validation * Yes
Conditions Conditions control action availability in the user interface. Conditions <i>When Last Command Name</i> and <i>When Last Command Argument</i> are compared with the last executed command.	When Last Command Name N/A When Last Command Argument

Description will be "Send notification to selected Customers", *Confirmation* will be "Notify?", and *Roles* will be "Administrators" to ensure that only administrators can initiate this action.

Presentation	Description
Specify action presentation properties.	Send notification to selected Customers.
	Confirmation Notify? Css Class
Security	Roles
List roles allowed to execute this action. Role check is performed on the server and precedes the	Administrators
action conditions.	
* - indicates a required field	OK Cancel

Save the action, and navigate up to the list of *All Pages*. Select the *Customers* page, and switch to the *Data Views* tab. Click on *view1*, and change *Selection Mode* to "Multiple".

Presentation	Show In Summary
Presentation properties of the data view.	
	Page Size
	Selection Mode *
	Multiple 👻

Save the view, exit the *Designer*, and generate the application.

When the web page appears, navigate to *Customers* page. You will see that you can select multiple customers with a checkbox in the first column. There is also a "Notify" button under the *Actions* menu. Currently, pressing this button will not do anything except prompt a "Notify?" confirmation screen.

Customers - Windows Internet Explorer						
G ⊂ ▼ Ittp://localhost:34506/SendEmail%20-%20Copy/Pa	iges/Customers.a	spx 🔻 🔯 🕯	🦩 🗙 😽 Go	ogle		+ م
🚖 Favorites 🛛 🎉 Customers		6	• 🔊 • 🗆	🛛 🖶 🔻 <u>P</u> ag	e ▼ <u>S</u> afety ▼	T <u>o</u> ols ▼
History Permalink		Welcome admin , To	day is Saturday, F	ebruary 12, 201	1 My Account	Logout Help
瓣 MyCompany						
Home Customers Employees Categories Customer D	emographics Re	gion • Reports • Membership			Si	te Actions 🔻
About This is a list of customers.						
This page allows customers management.	stomers Action	ns 🔹 Report 👻			View: Cust	tomers 🔻
See Also	Contact	Download Download items in CSV format.	City	Region Postal Code	Country Ph	none 🗉
Orders ALFKI Alfreds Futterkiste Customer Demo	Maria A	Export to Spreadsheet Analyze items with spreadsheet	Berlin	n/a 12209	Germany 03	30-0074321
Order Details ANATR Ana Trujillo Emparedados helados	y Ana Tru	application.	México D.F.	n/a 05021	Mexico (5	i) 555-4729
ANTON Antonio Moreno Taquería	Antonio	Syndicate items with an RSS reader.	México D.F.	n/a 05023	Mexico (5	i) 555-3932
AROUT Around the Horn	Thomas 🎒	Upload a CSV, XLS, or XLSX file to import records.	London	n/a WA1 10	0PUK (1 72	171) 555- 788
V BERGS Berglunds snabbköp	Christin Berglun	Notify Send notification to selected Customers.	Luleå	n/a S-958 2	2 Sweden 09	921-12 34 65
BLAUS Blauer See Delikatessen	Hanna Moos	Sales Representative Forsterstr. 57	Mannheim	n/a 68306	Germany 06	521-08460
BLONP Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager 24, place Kléber	Strasbourg	n/a 67000	France 88	8.60.15.31
☑ BOLID Bólido Comidas preparada	s Martín Sommer	Owner C/ Araquil, 67	Madrid	n/a 28023	Spain (9 82	91) 555 22 2
javascript:	Laurence	Internet	Protected Mode	e: On		€ 100% ▼

You will need to make modifications to *CustomersBusinessRules.vb(cs)* to implement the required business logic that will execute in response to the action. The code will find the email addresses of the selected customers, and send a notification. The updated business rules class can be found below.

Notice that method *SendAnEmailToSelectedCustomers* does not require any parameters. We are not interested in the current selected record and instead are paying attention to *Arguments.SelectedValues* array of selected primary keys.

The name of the method is irrelevant.

The arguments of the *ControllerAction* attribute ensure that the method is executed in response to user actions.

We are using *Customers* business object to locate customer information while iterating trough the primary keys of the selected customers.

VB.NET

```
Imports MyCompany.Data
Imports System
Imports System.Collections.Generic
Imports System.Data
Imports System.Linq
Imports System.Net.Mail
Imports System.Net
Imports MyCompany.Data.Objects
Namespace MyCompany.Rules
    Partial Public Class CustomersBusinessRules
        Inherits MyCompany.Data.BusinessRules
        <ControllerAction("Customers", "Custom", "NotifySelectedCustomers")> _
        Sub SendAnEmailToSelectedCustomers()
            Dim message As MailMessage = New MailMessage()
            message.From = New MailAddress("SENDER@gmail.com", "web App Admin")
            ' prepare smtp client
            Dim smtp As SmtpClient = New SmtpClient("smtp.gmail.com", 587)
            smtp.EnableSs1 = True
            smtp.UseDefaultCredentials = False
            smtp.Credentials = New NetworkCredential("SENDER@gmail.com", "PASSWORD")
            ' compose and send an email message to selected customers
            For Each customerId As String In Arguments.SelectedValues
                ' use customerID to find the recipient's email
                Dim sendTo As String = "recipient@contoso.com" ' fake email address of a customer
                Dim customer As Customers = Customers.SelectSingle(customerId)
                message.To.Add(sendTo)
                message.Subject = String.Format("Hello {0} at {1}.", customer.ContactName, _
                                                customer.CompanyName)
                message.Body = "Hello there!"
                smtp.Send(message)
            Next
            Result.ShowMessage(String.Format("{0} notifications have been sent.", _
                Arguments.SelectedValues.Length))
        End Sub
        <ControllerAction("Customers", "Custom", "SendEmail")> _
        Sub SendAnEmailToACustomer(ByVal companyName As String, ByVal contactName As String, _
                                   ByVal customerID As String)
            Dim message As MailMessage = New MailMessage()
            message.From = New MailAddress("SENDER@gmail.com", "Web App Admin")
            ' prepare smtp client
            Dim smtp As SmtpClient = New SmtpClient("smtp.gmail.com", 587)
            smtp.EnableSs1 = True
            smtp.UseDefaultCredentials = False
            smtp.Credentials = New NetworkCredential("SENDER@gmail.com", "PASSWORD")
            ' compose and send an email message
            Dim sendTo As String = "recipient@contoso.com" ' fake email address of a customer
            message.To.Add(sendTo)
            message.Subject = String.Format("Hello {0} at {1}.", contactName, companyName)
            message.Body = "Hello there!"
            smtp.Send(message)
            Result.ShowAlert("Email has been sent.")
        End Sub
  End Class
End Namespace
```

<u>C#</u>

```
using System;
using System.Data;
using System.Collections.Generic;
using System.Linq;
using MyCompany.Data;
using System.Net.Mail;
using System.Net;
using MyCompany.Data.Objects;
namespace MyCompany.Rules
{
    public partial class CustomersBusinessRules : MyCompany.Data.BusinessRules
        [ControllerAction("Customers", "Custom", "NotifySelectedCustomers")]
        public void SendAnEmailToSelectedCustomers()
        {
            MailMessage message = new MailMessage();
            message.From = new MailAddress("SENDER@gmail.com", "Web App Admin");
            // prepare smtp client
            SmtpClient smtp = new SmtpClient("smtp.gmail.com", 587);
            smtp.EnableSs1 = true;
            smtp.UseDefaultCredentials = false;
            smtp.Credentials = new NetworkCredential("SENDER@gmail.com", "PASSWORD");
            // compose and send an email message to selected customers
            foreach (string customerId in Arguments.SelectedValues)
            {
                Customers customer = Customers.SelectSingle(customerId);
                // use CustomerID to find the recipient's email
                string sendTo = "recipient@contoso.com"; // fake email address of a customer
                message.To.Add(sendTo);
                message.Subject = String.Format("Hello {0} at {1}.", customer.ContactName,
                    customer.CompanyName);
                message.Body = "Hello there!";
                smtp.Send(message);
            }
            Result.ShowMessage(String.Format("{0} notifications have been sent.",
                Arguments.SelectedValues.Length));
       }
        [ControllerAction("Customers", "Custom", "SendEmail")]
        public void SendAnEmailToACustomer(string companyName, string contactName, string customerId)
        {
            MailMessage message = new MailMessage();
            message.From = new MailAddress("SENDER@gmail.com", "Web App Admin");
            // prepare smtp client
            SmtpClient smtp = new SmtpClient("smtp.gmail.com", 587);
            smtp.EnableSs1 = true;
            smtp.UseDefaultCredentials = false;
            smtp.Credentials = new NetworkCredential("SENDER@gmail.com", "PASSWORD");
            // compose and send an email message
            // use CustomerID to find the recipient's email
            string sendTo = "recipient@contoso.com"; // fake email address of a customer
            message.To.Add(sendTo);
            message.Subject = String.Format("Hello {0} at {1}.", contactName, companyName);
            message.Body = "Hello there!";
            smtp.Send(message);
            Result.ShowAlert("Email has been sent.");
       }
   }
}
```

Save the business rules file, and refresh the web page. When you select multiple customers and press the "Notify" button, a confirmation will appear.

🏉 Customers - Windows Inter	net Explorer								_ 0	X
🚱 🔵 🗢 🙋 http://local	host:34506/Sen	dEmail%20-%20Copy/Page	s/Customers.as	ustomers.aspx 🔻 🗟 😽 🗙 🚼 Google						+ م
🖕 Favorites 🏾 🌈 Customers				🚵 🔻 🖾 🖛 🖛 Page 🕶 Safety)• [»]
History Permalink					Welcome admin , To	oday is Saturday, F	ebruary 12, 201	1 My Accou	nt Logout Help	p ^
斜 MyCompany										. 11
Home Customers - Em	nployees • Ca	ategories 👻 Customer Dem	ographics Regi	ion • Reports •	Membership				Site Actions -	
C C	me > Customer Custome	s Irs								
About	This is a list of cu	istomers.	Message from	n webpage	x					
This page allows customers management.		🔎 📑 New Cust						View: C	ustomers 🔹	
See Also	Customer # Company Name			Notify?			Region Postal Code	Country	Phone	=
Orders Customer Demo	ALFKI	Alfreds Futterkiste				Berlin	n/a 12209	Germany	030-0074321	
Order Details	ANATR	Ana Trujillo Emparedados y helados		ОК С	ancel	México D.F.	n/a 05021	Mexico	(5) 555-4729	
	ANTON	Antonio Moreno Taquería	Import From File		r.	México D.F.	n/a 05023	Mexico	(5) 555-3932	
	AROUT	Around the Horn	Thomas 🎒	Upload a CSV, XLS, to import records.	or XLSX file	London	n/a WA1 1D	P UK	(171) 555- 7788	
	BERGS	Berglunds snabbköp	Christin Berglun	Notify Send notification to	selected Customers.	Luleå	n/a S-958 2	2 Sweden	0921-12 34 65	
	BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim	n/a 68306	Germany	0621-08460	
	BLONP	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg	n/a 67000	France	88.60.15.31	
	BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid	n/a 28023	Spain	(91) 555 22 82	
javascript:			Laurence	-	lnternet	Protected Mod	e: On	-	▼ € 100%	• •

Press "OK", and the notification emails will be sent to the selected customers.

The same exact scenario applies to any other business logic that must affect multiple records selected in a grid view.