

OPENSIFT 2.X VISUAL STUDIO TOOL GUIDE TO

DEPLOY SAMPLE APPLICATION



Click2Cloud Inc.

contact@click2cloud.net | +1 425 748 9666 | +1 425 749 7495

Suite 235 G, Impact Hub, 555 116th Ave NE, Bellevue, WA 98004, United States

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Please Note: **Click2Cloud OpenShift 2.X Visual Studio 2012+ Tool** have been referred as Plugin, Extension and Tool in this document. The all the words used points to Click2Cloud OpenShift 2.X Visual Studio 2012+ Extension.

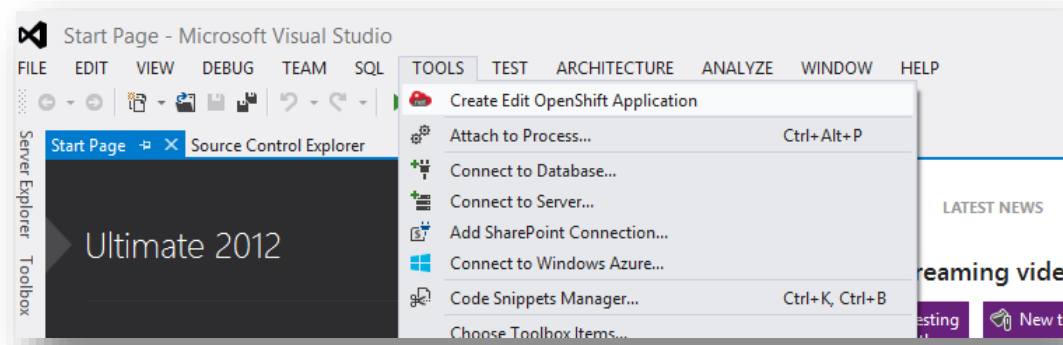
1. ABOUT THIS GUIDE

This guide will walk you through the deploying Sample Application using OpenShift.NET Visual Studio Extension for Visual Studio 2012+ Versions.

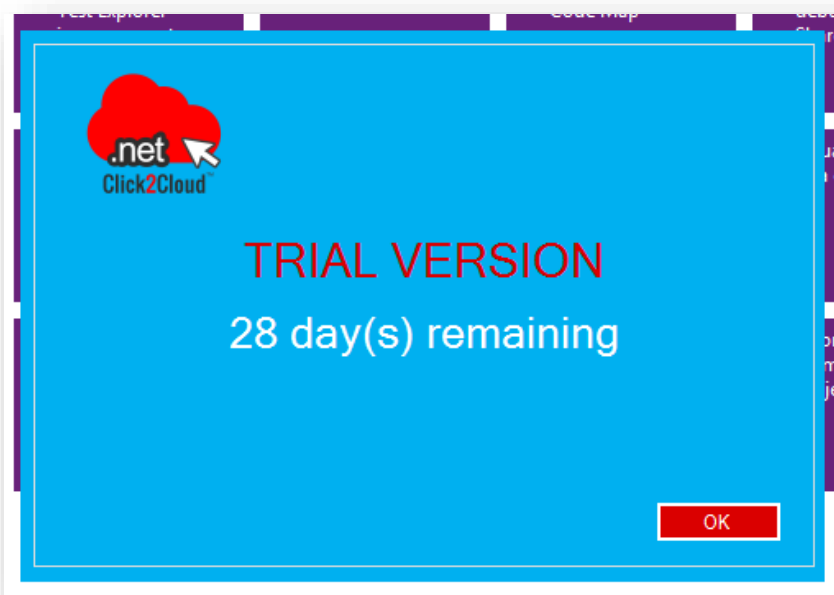
2. DEPLOYING SAMPLE APPLICATION USING OPENSIFT 2.X Visual Studio Tool

This template provide the easy way to create, run web application in OpenShift environment using OpenShift.NET Visual Studio Extension. It provides freedom to developer to choose any embedded database cartridge for creating web application using cartridges. Use the following steps to create the application using **DOTNET 4.5** Cartridge and **MS SQL 2014** OR **FoxWeb 4.6.3** Cartridge and **MSSQL 2014** Cartridge into OpenShift -

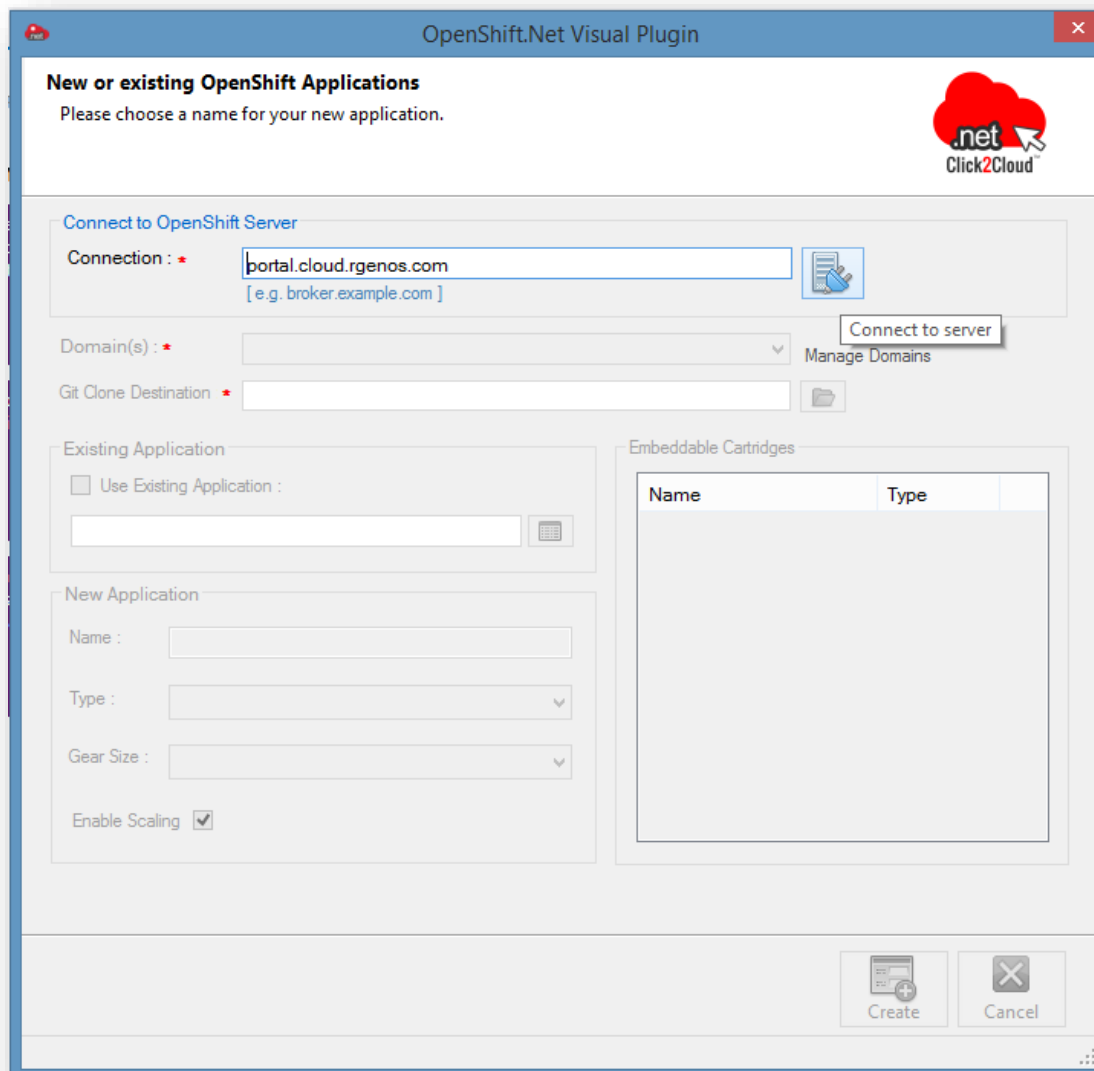
1. Open **Visual Studio** instance, select **TOOLS** from menu bar and then select **Create Edit OpenShift Application** as specified in below screen –



2. **Trial License** dialog will display details about how many days are remaining for the license to expire. Then click on **OK** button.



3. On the **OpenShift.NET Visual Studio Plugin** window, enter OpenShift server **hostname** and click on **Connect to Server** button.



The image shows a screenshot of the 'OpenShift.Net Visual Plugin' dialog box. The title bar reads 'OpenShift.Net Visual Plugin'. The main heading is 'New or existing OpenShift Applications' with a subtext 'Please choose a name for your new application.' and the Click2Cloud .net logo. The dialog is divided into several sections: 'Connect to OpenShift Server' with fields for 'Connection' (containing 'portal.cloud.rgenos.com'), 'Domain(s)', and 'Git Clone Destination', along with a 'Connect to server' button; 'Existing Application' with a checkbox 'Use Existing Application' and a text field; 'New Application' with fields for 'Name', 'Type', and 'Gear Size', and a checked 'Enable Scaling' checkbox; and 'Embeddable Cartridges' with a table with columns 'Name' and 'Type'. At the bottom right are 'Create' and 'Cancel' buttons.

OpenShift.Net Visual Plugin

New or existing OpenShift Applications
Please choose a name for your new application.

Connect to OpenShift Server

Connection : *
[e.g. broker.example.com]

Domain(s) : *

Git Clone Destination *

Existing Application

☐ Use Existing Application :

New Application

Name :

Type :

Gear Size :

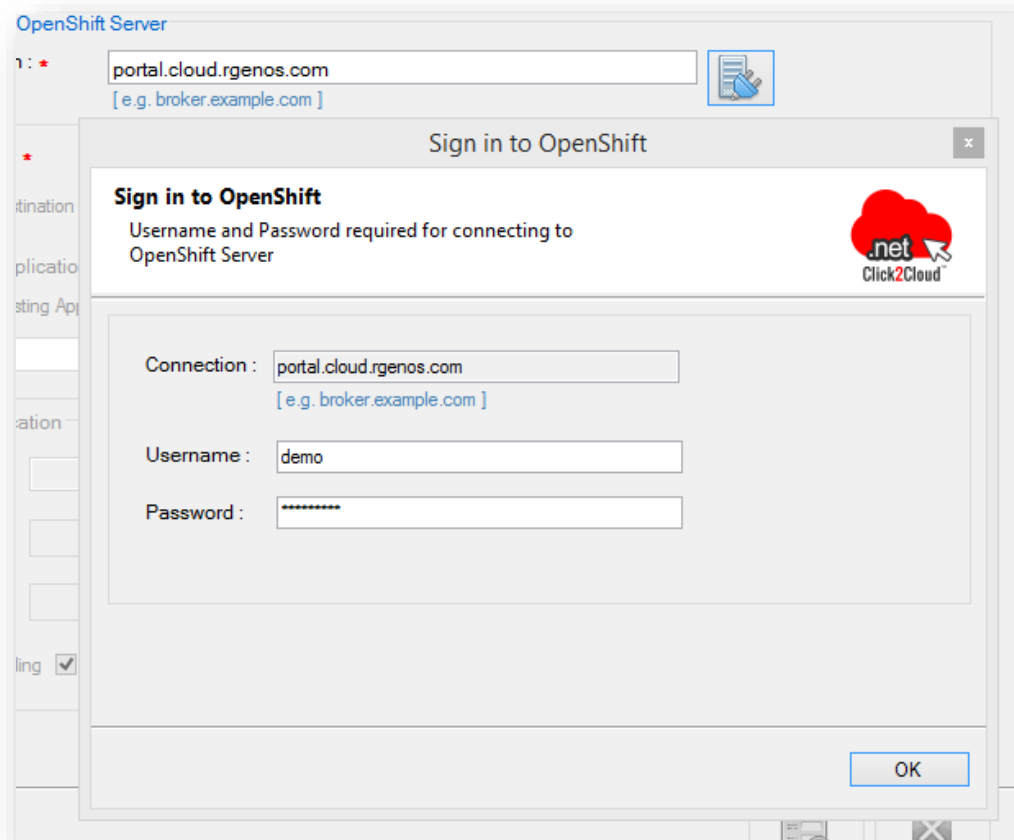
Enable Scaling ☒

Embeddable Cartridges

Name	Type
------	------

Create **Cancel**

4. On **Sign in to OpenShift** window, enter **Username** and **Password** and click **OK**.



5. A **Command Prompt** window will appear while connecting for the first time, where when asked about **token generation**, enter **yes**.

```
C:\WINDOWS\system32\cmd.exe

C:\Program Files (x86)\Microsoft Visual Studio 11.0\Common7\IDE>rhc setup --serv
er portal.cloud.rgenos.com --rhlogin sapanv --password Pass@123
OpenShift Client Tools (RHC) Setup Wizard

This wizard will help you upload your SSH keys, set your application namespace,
and check that other programs like Git are properly installed.

Using sapanv to login to portal.cloud.rgenos.com
The server's certificate could not be verified, which means that a secure
connection can't be established to 'portal.cloud.rgenos.com'.

You may bypass this check, but any data you send to the server could be
intercepted by others.

Connect without checking the certificate? (yes|no): yes

OpenShift can create and store a token on disk which allows to you to access the
server without using your password. The key is stored in your home directory and
should be kept secret. You can delete the key at any time by running 'rhc
logout'.
Generate a token now? (yes|no) yes
```

6. Next, enter **yes** when asked for uploading your public SSH key to OpenShift server.

```
C:\WINDOWS\system32\cmd.exe

connection can't be established to 'portal.cloud.rgenos.com'.

You may bypass this check, but any data you send to the server could be
intercepted by others.

Connect without checking the certificate? (yes|no): yes

OpenShift can create and store a token on disk which allows to you to access the
server without using your password. The key is stored in your home directory and
should be kept secret. You can delete the key at any time by running 'rhc
logout'.
Generate a token now? (yes|no) yes
Generating an authorization token for this client ... lasts about 1 day

Saving configuration to C:\Users\sapan.vaswani\.openshift\express.conf ... done

No SSH keys were found. We will generate a pair of keys for you.

Created: C:/Users/sapan.vaswani/.ssh/id_rsa.pub

Your public SSH key must be uploaded to the OpenShift server to access code.
Upload now? (yes|no)
yes
```

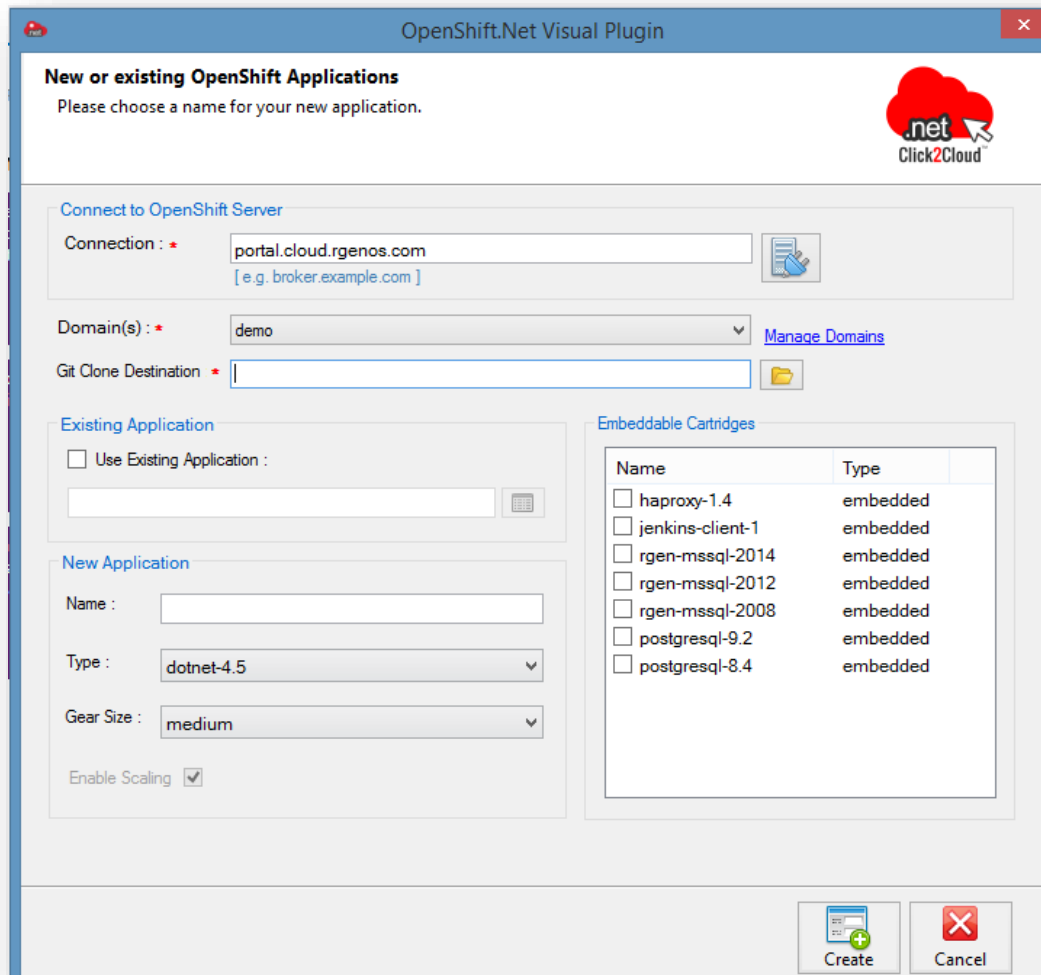
7. Further you will be asked to enter a name for the Key which is not mandatory. In any case, press Enter.

```
C:\WINDOWS\system32\cmd.exe

No SSH keys were found. We will generate a pair of keys for you.
Created: C:/Users/sapan.vaswani/.ssh/id_rsa.pub
Your public SSH key must be uploaded to the OpenShift server to access code.
Upload now? <yes!no>
yes

default <type: ssh-rsa>
-----
Fingerprint: 97:1d:82:63:59:59:4a:d3:fc:65:4c:be:6c:c4:40:2c
sapanvWSD011 <type: ssh-rsa>
-----
Fingerprint: d5:23:39:ba:35:2a:a3:ac:1f:8b:05:43:cf:3c:75:18
sapanvWSD023 <type: ssh-rsa>
-----
Fingerprint: 3e:16:5d:54:e0:59:ea:16:d2:87:45:c2:11:a1:df:a5
You can enter a name for your key, or leave it blank to use the default name.
Using the same name as an existing key will overwrite the old key.
Provide a name for this key: !sapanvWSD023!;
```

- Below dialog will load Cartridges, Domains, Gears and Applications of respective selected domain.



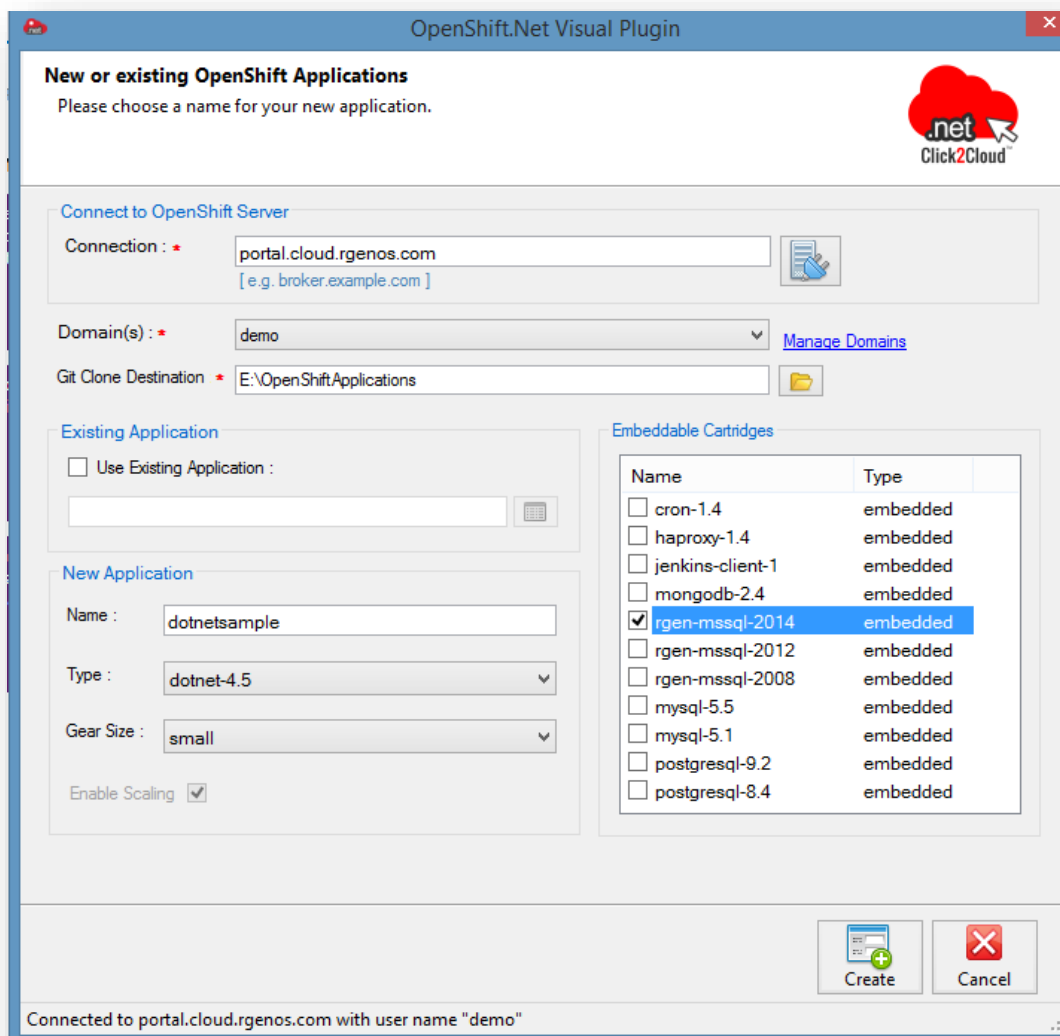
The dialog box is titled "OpenShift.Net Visual Plugin". It has a header section "New or existing OpenShift Applications" with a sub-header "Please choose a name for your new application." and a Click2Cloud logo. Below this is a "Connect to OpenShift Server" section with fields for "Connection" (portal.cloud.rgenos.com), "Domain(s)" (demo), and "Git Clone Destination". There are also "Existing Application" and "New Application" sections. The "New Application" section has fields for "Name", "Type" (dotnet-4.5), "Gear Size" (medium), and a checked "Enable Scaling" checkbox. To the right is an "Embeddable Cartridges" table.

Name	Type
<input type="checkbox"/> haproxy-1.4	embedded
<input type="checkbox"/> jenkins-client-1	embedded
<input type="checkbox"/> rgen-mssql-2014	embedded
<input type="checkbox"/> rgen-mssql-2012	embedded
<input type="checkbox"/> rgen-mssql-2008	embedded
<input type="checkbox"/> postgresql-9.2	embedded
<input type="checkbox"/> postgresql-8.4	embedded

At the bottom right are "Create" and "Cancel" buttons.

9. Create application using DOTNET-4.5 and MSSQL 2014

To create new application using **DOTNET-4.5** and **MSSQL 2014**, click on **Browse for folder location** button, select destination for cloning (copying) application and after that enter the name for new application in **Name** textbox, select **dotnet-4.5** in **Type** dropdown, select gear size from **Gear Size** dropdown and select **rgen-mssql-2014** cartridge under **Embedded Cartridges** list and then click **Create** button.



The image shows a screenshot of the 'OpenShift.Net Visual Plugin' dialog box. The title bar reads 'OpenShift.Net Visual Plugin'. The main heading is 'New or existing OpenShift Applications' with a sub-instruction 'Please choose a name for your new application.' and the Click2Cloud logo.

Connect to OpenShift Server

Connection : * portal.cloud.rgenos.com [e.g. broker.example.com]

Domain(s) : * demo Manage Domains

Git Clone Destination * E:\OpenShiftApplications

Existing Application

☐ Use Existing Application :

New Application

Name : dotnetsample

Type : dotnet-4.5

Gear Size : small

Enable Scaling ☒

Embeddable Cartridges

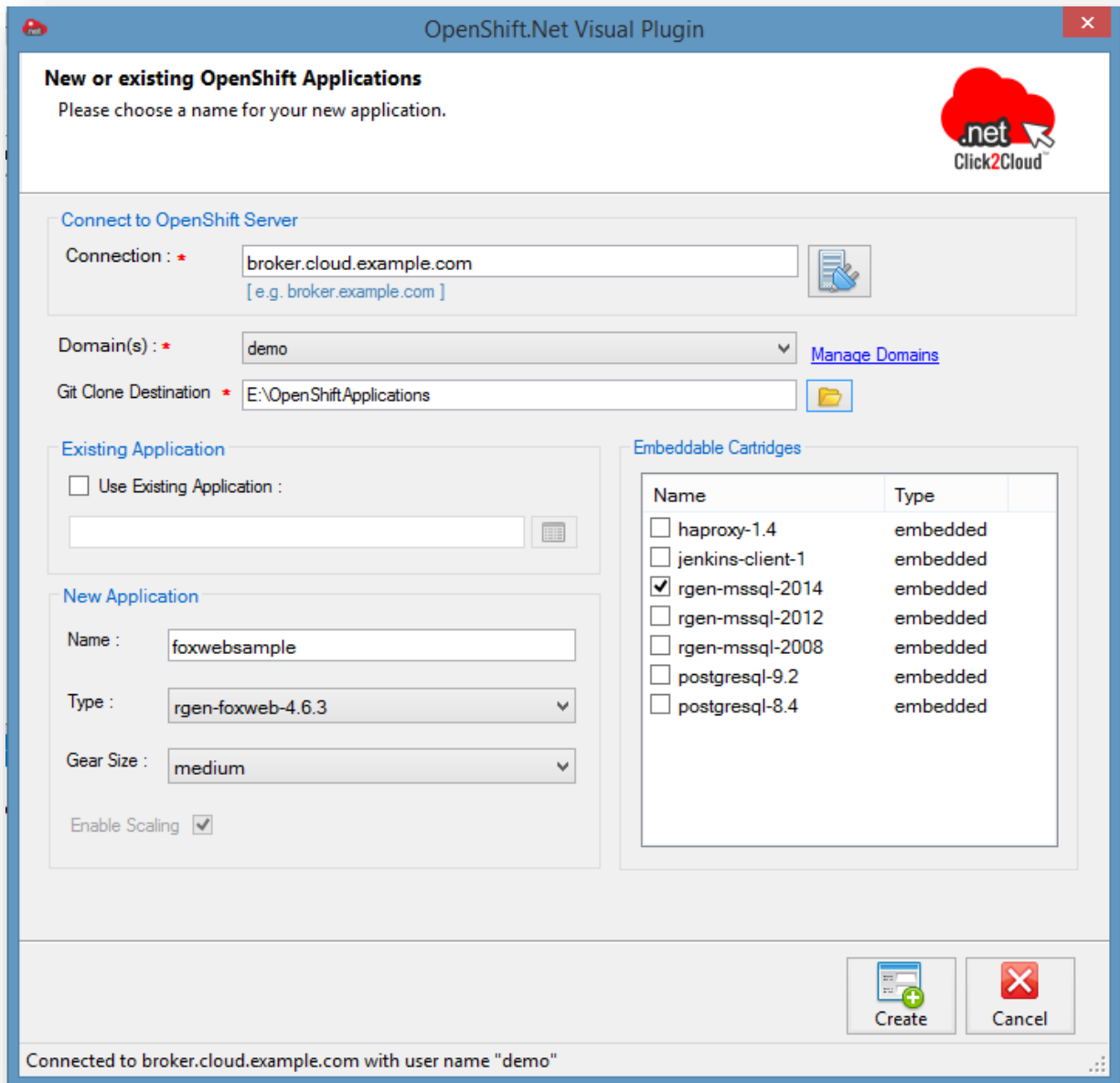
Name	Type
<input type="checkbox"/> cron-1.4	embedded
<input type="checkbox"/> haproxy-1.4	embedded
<input type="checkbox"/> jenkins-client-1	embedded
<input type="checkbox"/> mongodb-2.4	embedded
<input checked="" type="checkbox"/> rgen-mssql-2014	embedded
<input type="checkbox"/> rgen-mssql-2012	embedded
<input type="checkbox"/> rgen-mssql-2008	embedded
<input type="checkbox"/> mysql-5.5	embedded
<input type="checkbox"/> mysql-5.1	embedded
<input type="checkbox"/> postgresql-9.2	embedded
<input type="checkbox"/> postgresql-8.4	embedded

Buttons: Create, Cancel

Connected to portal.cloud.rgenos.com with user name "demo"

10. Create application using FOXWEB-4.6.3 and MSSQL 2014

To create new application using **FOXWEB-4.6.3** and **MSSQL 2014**, click on **Browse for folder location** button, select destination for cloning (copying) application and after that enter the name for new application in **Name** textbox, select **rgen-foxweb-4.6.3** in **Type** dropdown, select gear size from **Gear Size** dropdown and select **rgen-mssql-2014** cartridge under **Embedded Cartridges** list and then click **Create** button.



The dialog box is titled "OpenShift.Net Visual Plugin". It contains several sections for configuring an application deployment.

New or existing OpenShift Applications
Please choose a name for your new application.

Connect to OpenShift Server

Connection : *
[e.g. broker.example.com]

Domain(s) : * [Manage Domains](#)

Git Clone Destination *

Existing Application

☐ Use Existing Application :

New Application

Name :

Type :

Gear Size :

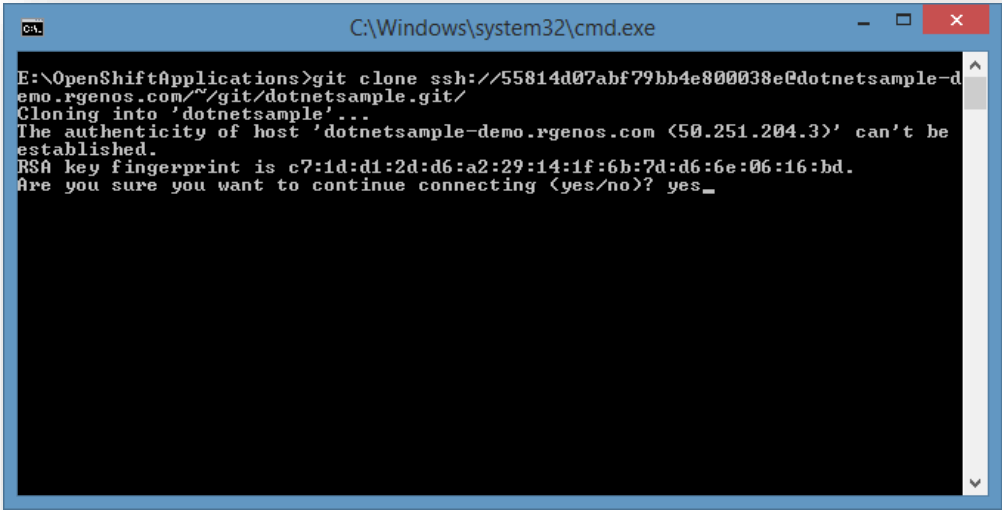
Enable Scaling ☒

Embeddable Cartridges

Name	Type
<input type="checkbox"/> haproxy-1.4	embedded
<input type="checkbox"/> jenkins-client-1	embedded
<input checked="" type="checkbox"/> rgen-mssql-2014	embedded
<input type="checkbox"/> rgen-mssql-2012	embedded
<input type="checkbox"/> rgen-mssql-2008	embedded
<input type="checkbox"/> postgresql-9.2	embedded
<input type="checkbox"/> postgresql-8.4	embedded

Connected to broker.cloud.example.com with user name "demo"

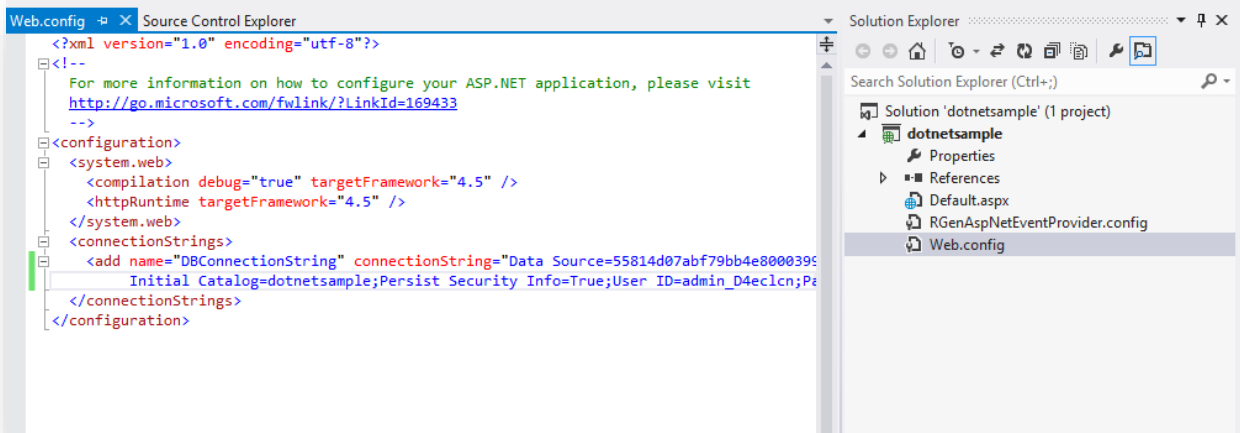
- After successful creation of application it will start cloning. After some time you will be asked to continue connecting, refer below. Enter **yes** to continue.



```
C:\Windows\system32\cmd.exe

E:\OpenShiftApplications>git clone ssh://55814d07abf79bb4e800038e@dotnetsample-demo.rgenos.com/~"/git/dotnetsample.git/
Cloning into 'dotnetsample'...
The authenticity of host 'dotnetsample-demo.rgenos.com (50.251.204.3)' can't be established.
RSA key fingerprint is c7:1d:d1:2d:d6:a2:29:14:1f:6b:7d:d6:6e:06:16:bd.
Are you sure you want to continue connecting (yes/no)? yes_
```

9. Once application is successfully clone on specified location, project will be open in Visual Studio and **web.config** file shows the connection string of the database.



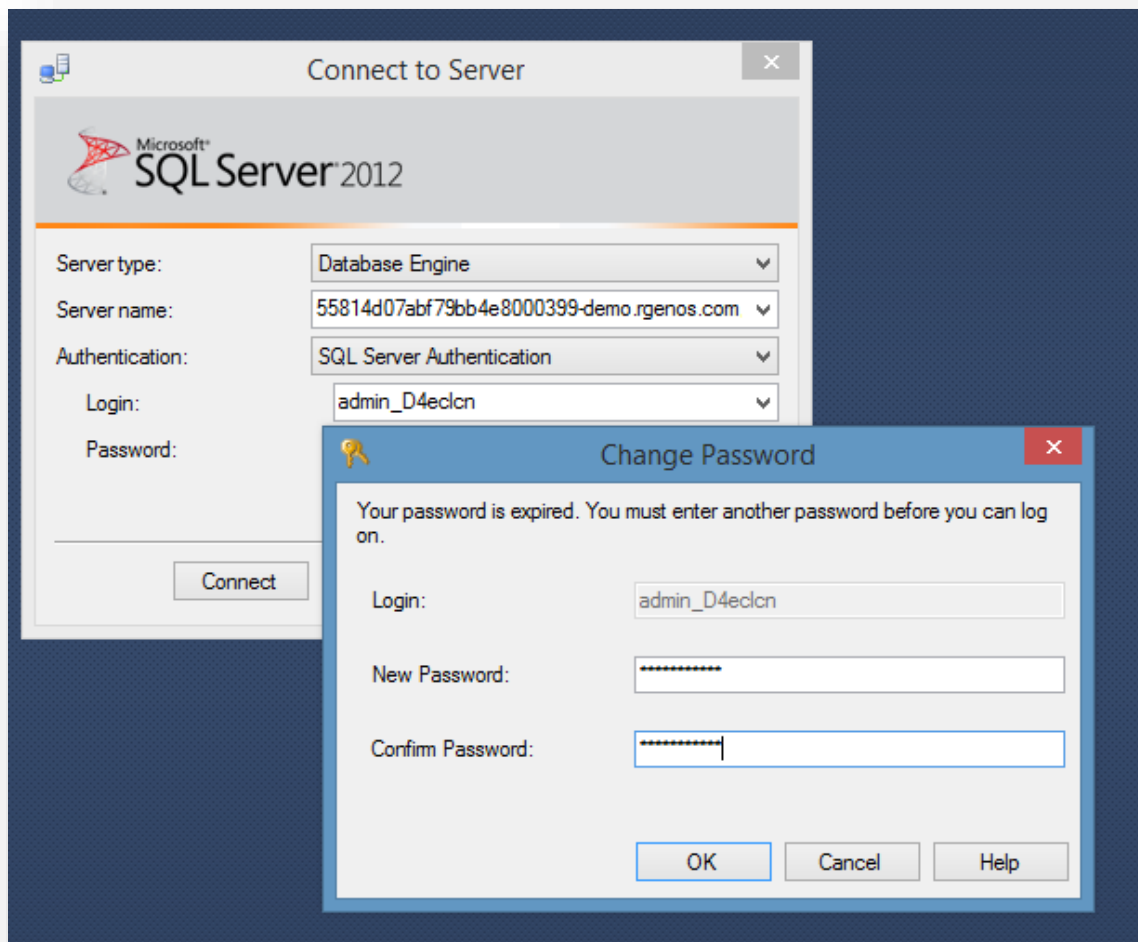
```
Web.config  Source Control Explorer

<?xml version="1.0" encoding="utf-8"?>
<!--
  For more information on how to configure your ASP.NET application, please visit
  http://go.microsoft.com/fwlink/?LinkId=169433
-->
<configuration>
  <system.web>
    <compilation debug="true" targetFramework="4.5" />
    <httpRuntime targetFramework="4.5" />
  </system.web>
  <connectionStrings>
    <add name="DBConnectionString" connectionString="Data Source=55814d07abf79bb4e800038e@dotnetsample-demo.rgenos.com;Initial Catalog=dotnetsample;Persist Security Info=True;User ID=admin_D4ecln;Password=1qaz!@WSX" />
  </connectionStrings>
</configuration>
```

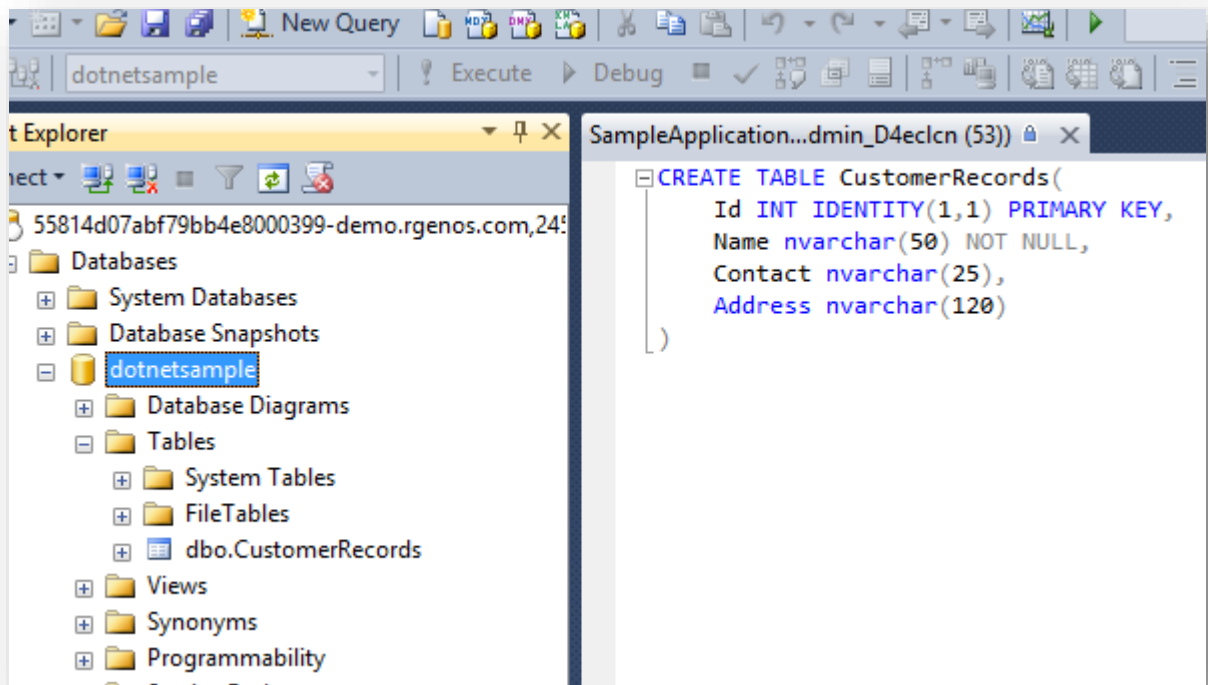
Solution Explorer

- Solution 'dotnetsample' (1 project)
- dotnetsample
- Properties
- References
- Default.aspx
- RGenAspNetEventProvider.config
- Web.config

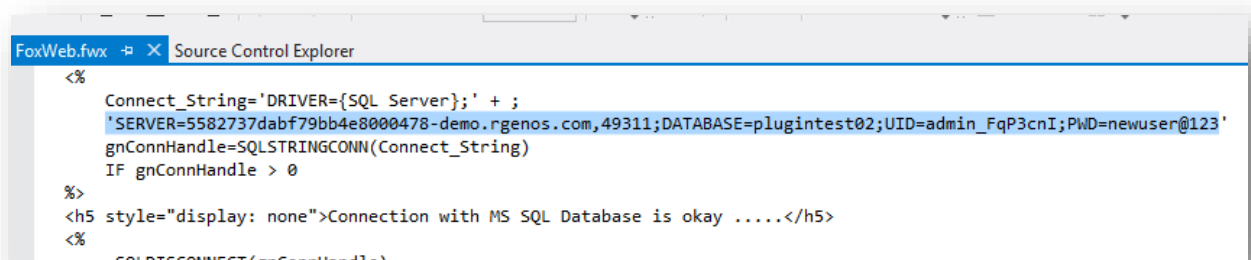
10. Before continue, first login to SQL Server specified in **web.config** file using **SQL Server Management Studio** and change the password for admin user. After that, update the changed password in the **DBConnectionString**.
[NOTE: The MSSQL Cartridges require to change password in first login]

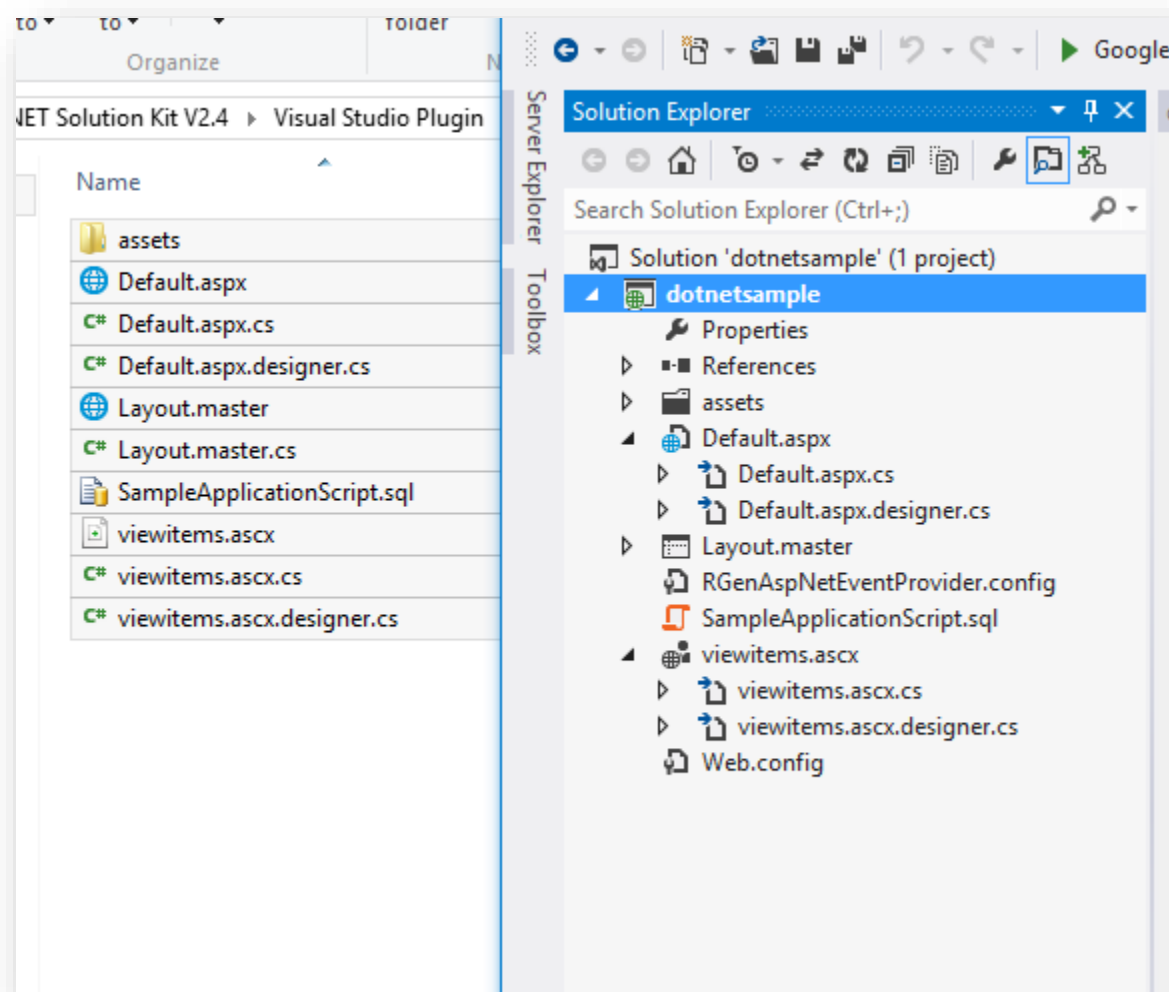


11. Now in the **SQL Server Management Studio**, Open the **SampleApplicationScript.sql** file located in the **DatabaseScript** folder and run it. It will install the required table for running the sample application.

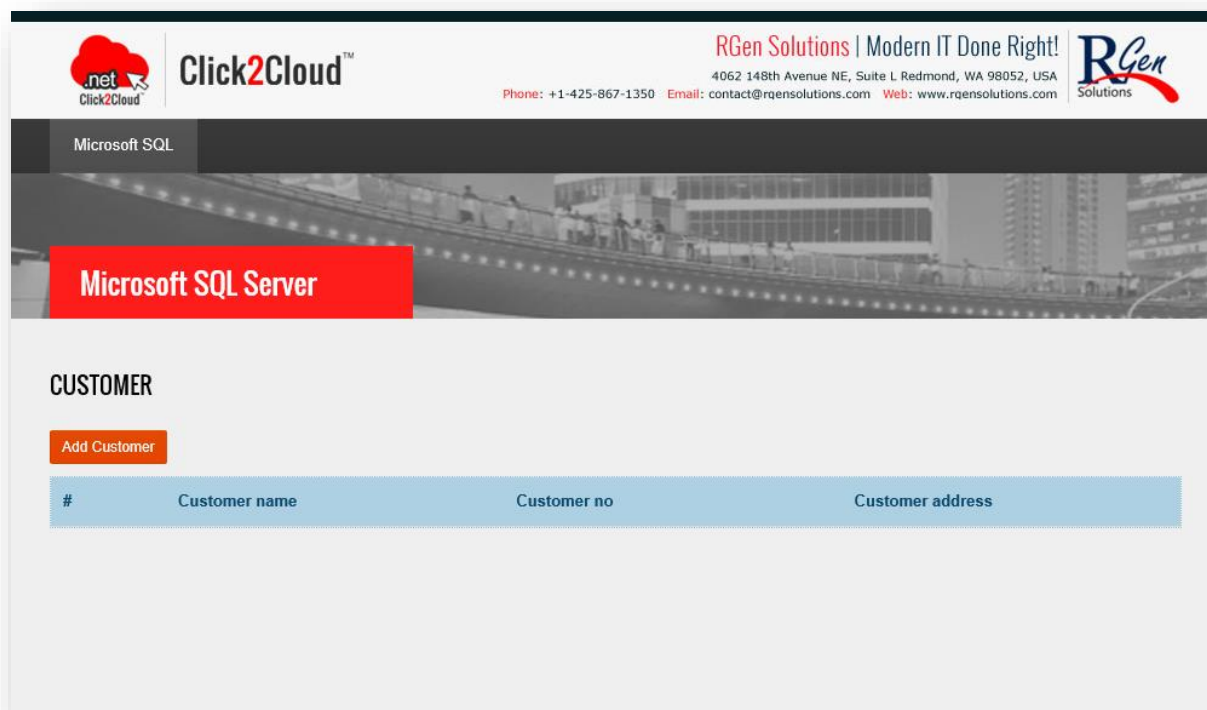


12. Now import all files from **DOTNET-4.5 and MSSQL** folder (if creating DOTNET application) OR **FOXWEB-4.6.3 and MSSQL** folder (if creating FoxWeb application) in the application.
13. **NOTE:** In case of FoxWeb application, connection string need to be modified in **FoxWeb.fwx** file also.

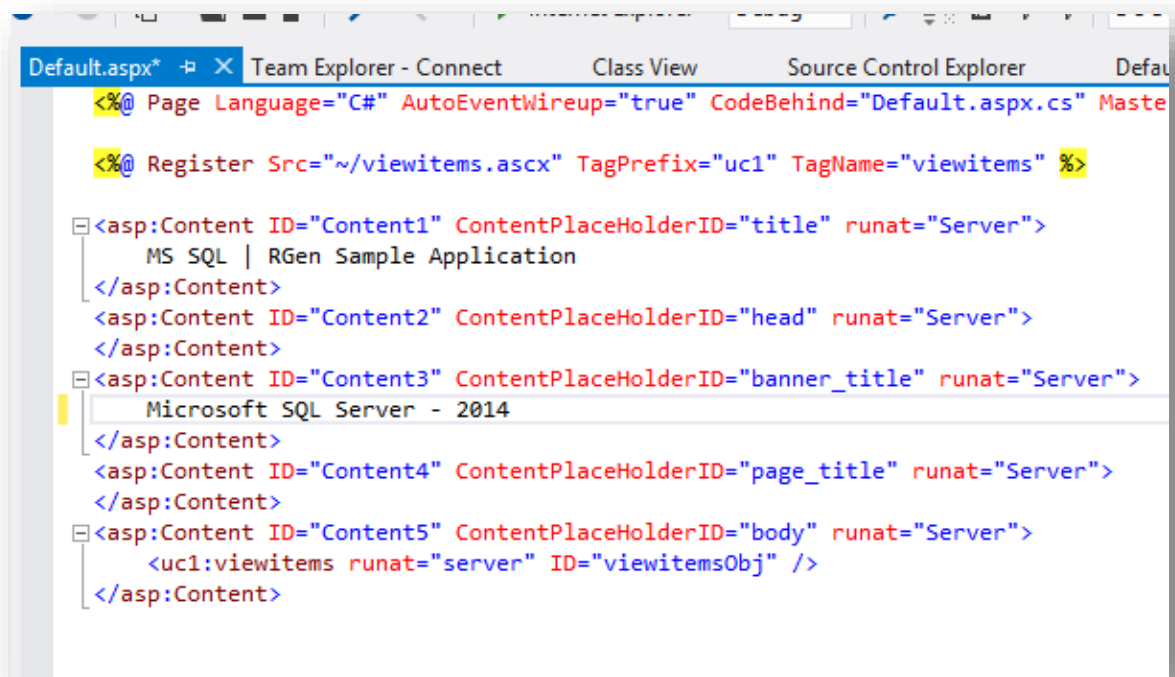




14. Now click **F5** to run application locally. You should see following output in browser.



15. To deploy changes on OpenShift using OpenShift.NET Visual Studio Plugin, modify any content as per requirement. For example, in this example, we are changing **Microsoft SQL Server** text as specified in above screen with **Microsoft SQL Server -2014** by changing in **Default.aspx** page.

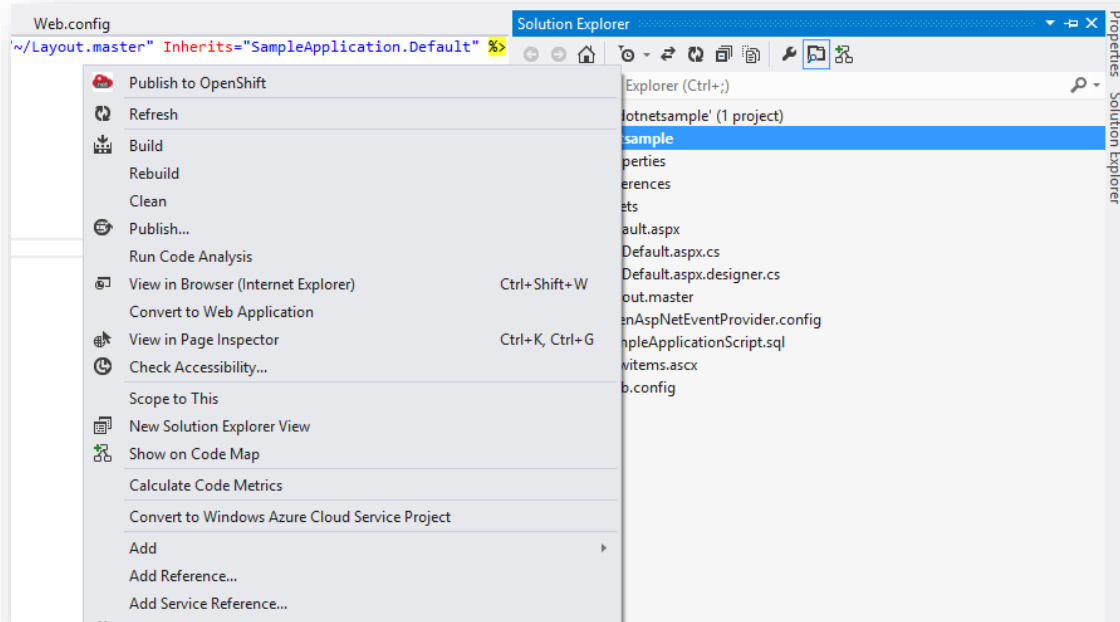


```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Default.aspx.cs" Master="Default.master" %>

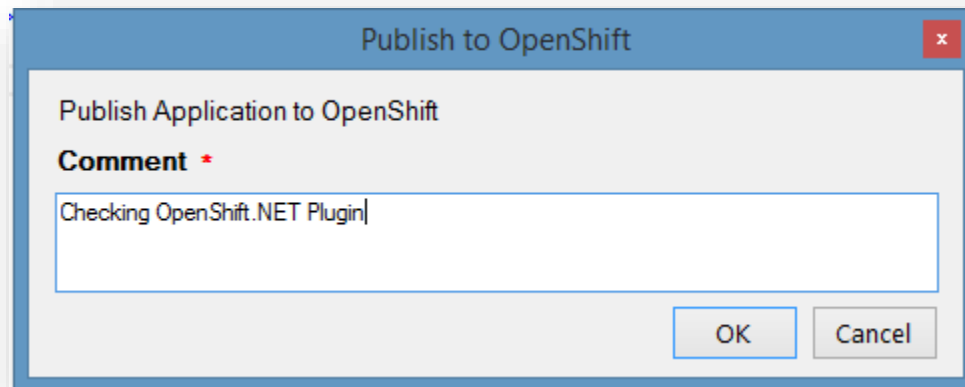
<%@ Register Src="~/viewitems.ascx" TagPrefix="uc1" TagName="viewitems" %>

<asp:Content ID="Content1" ContentPlaceHolderID="title" runat="Server">
    MS SQL | RGen Sample Application
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="head" runat="Server">
</asp:Content>
<asp:Content ID="Content3" ContentPlaceHolderID="banner_title" runat="Server">
    Microsoft SQL Server - 2014
</asp:Content>
<asp:Content ID="Content4" ContentPlaceHolderID="page_title" runat="Server">
</asp:Content>
<asp:Content ID="Content5" ContentPlaceHolderID="body" runat="Server">
    <uc1:viewitems runat="server" ID="viewitemsObj" />
</asp:Content>
```

16. Now to deploy changes on OpenShift environment, first save the file and right click on Project in **Solution Explore** and then select **Publish to OpenShift**.



17. In the **Publish to OpenShift** window, enter Comment and click **OK**.



18. Once application is deployed successfully, it will show publish logs in **Publish to OpenShift** window.

