

Deploying Application on salesforce.com

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This session will discuss possible approach and techniques to integrate CA 2E, IBM i Web service server and salesforce.com to generate, deploy and expose an IBM i application via salesforce.com

Agenda

- What is Cloud/salesforce.com
- Overview/Demo
- Q&A

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What is Cloud and salesforce.com

- Cloud computing fundamentally means, using a program/business logic stored on a computer somewhere else and accessed over internet.
- Leading cloud service providers are Amazon, IBM, CA, salesforce etc.
- salesforce.com Inc. is a global cloud computing company.

Benefits of integrating 2E and salesforce.com

- Some of the benefits of combining 2E and salesforce.com are
 - ❑ Rapidly build best in class business application using CA 2E
 - ❑ bandwidth flexibility to meet business demands
 - ❑ Modern GUI with modern application access tools to access the application
 - ❑ Fast to deploy – useful tools to build your GUI and automated process
 - ❑ Disaster recovery – cloud service provider takes care of it
 - ❑ Platform independent – any device with internet connection

WSDL file

- We used an externally available web service that provides stock quote for any company.
 - <http://www.websvcex.net/stockquote.asmx>
- Downloaded its WSDL file and edited it.



Original WSDL



Modified WSDL

Creating classes

- A class is a template or blueprint from which objects are created.
- It is very easy to create APEX classes that make the callout to Web Service.
- Click on your Name → Setup → Develop → Apex Classes to view or create new classes.
- Upload the modified WSDL to salesforce where the WSDL will be parsed and corresponding APEX class will get created.

Creating classes

https://cs11.salesforce.com/01p?retURL=%2Fui%2Fsetup%2FSetup%3Fsetupid%3D Apex Classes ~ salesforce.c... x

File Edit View Favorites Tools Help

salesforce 14 Search

Sandbox: SFDCAPP Niraj Kumar Upad... Help & Training GetOrder2E

Home Chatter Files Order Reports Dashboards +

Quick Find Expand All | Collapse All

Apex Classes

Force.com Apex Code is an object oriented programming language that allows developers to develop on-demand business applications on the Force.com platform.

Percent of Apex Used: 1.07%
You are currently using 32,175 characters of Apex Code (excluding comments and @isTest annotated classes) in your organization, out of an allowed limit of 3,000,000 characters. Note that the amount in use includes both Apex Classes and Triggers defined in your organization.

[Estimate your organization's code coverage](#) | [Compile all classes](#)

View: [Create New View](#)

A B C D E F **G** H I J K L M N O P Q R S T U V W X Y Z Other | All

Action	Name ↑	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Override Log Filters
Edit Del Security	getorder		25.0	Active	2,570	Niraj Kumar Upadhyay, 8/13/2012 3:58 AM	<input type="checkbox"/>
Edit Del Security	getorderXsd		25.0	Active	5,269	Niraj Kumar Upadhyay, 8/13/2012 3:58 AM	<input type="checkbox"/>
Edit Del Security	GetQuoteDemo		29.0	Active	2,279	Niraj Kumar Upadhyay, 10/22/2013 10:56 PM	<input type="checkbox"/>
Edit Del Security	GetQuoteDemoContrl		29.0	Active	2,914	Niraj Kumar Upadhyay, 10/25/2013 3:58 AM	<input type="checkbox"/>
Edit Del Security	GetQuoteLogin		29.0	Active	373	Niraj Kumar Upadhyay, 10/25/2013 7:41 AM	<input type="checkbox"/>
Edit	GraphData	ca_agile	23.0	Active	587	Kevin McGuire, 6/23/2012 5:22 PM	<input type="checkbox"/>
Edit	GraphDataPoint	ca_agile	23.0	Active	190	Kevin McGuire, 6/23/2012 5:22 PM	<input type="checkbox"/>
Edit	GridRow	ca_agile	23.0	Active	599	Kevin McGuire, 6/23/2012 5:22 PM	<input type="checkbox"/>
Edit	GridRowControllerTest	ca_agile	23.0	Active	481	Kevin McGuire, 6/23/2012 5:22 PM	<input type="checkbox"/>
Edit Security	GridSObject	ca_agile	23.0	Active	635	Kevin McGuire, 6/23/2012 5:22 PM	<input type="checkbox"/>

Chat

Understanding Classes

The screenshot displays the Salesforce Developer Console interface. At the top, the browser address bar shows the URL `https://cs11.salesforce.com/01pZ0000000EckJ`. The Salesforce logo and navigation menu are visible. The main content area shows the details for the Apex Class **GetQuoteDemo**. The class is active and has 0% code coverage. The class body is displayed in a code editor, showing the following code:

```
1 //Generated by wsdl2apex
2
3 public class GetQuoteDemo {
4     public class GetQuote_element {
5         public String symbol;
6         private String[] symbol_type_info = new String[]{"symbol","http://www.webserviceX.NET/",null,"0","1","false"};
7         private String[] apex_schema_type_info = new String[]{"http://www.webserviceX.NET/",true,"false"};
8         private String[] field_order_type_info = new String[]{"symbol"};
9     }
10    public class StockQuoteSoap {
11        public String endpoint_x = "http://www.webservices.net/stockquote.asmx";
12        public Map<String,String> inputHttpHeaders_x;
13        public Map<String,String> outputHttpHeaders_x;
14        public String clientCertName_x;
15        public String clientCert_x;
16        public String clientCertPasswd_x;
17        public Integer timeout_x;
18        private String[] ns_map_type_info = new String[]{"http://www.webserviceX.NET/", "GetQuoteDemo"};
19        public String GetQuote(String symbol) {
20            GetQuoteDemo GetQuote_element request_x = new GetQuoteDemo.GetQuote_element();
21            GetQuoteDemo.GetQuoteResponse_element response_x;
22            request_x.symbol = symbol;
23            Map<String, GetQuoteDemo.GetQuoteResponse_element> response_map_x = new Map<String, GetQuoteDemo.GetQuoteResponse_element>();
24            response_map_x.put("response_x", response_x);
25            WebServiceCallout.invoke(
26                this,
27                request_x,
28                response_map_x,
29                new String[]{endpoint_x,
30                    "http://www.webserviceX.NET/GetQuote",
31                    "http://www.webserviceX.NET/",
32                    "GetQuote",
33                    "http://www.webserviceX.NET/",
34                    "GetQuoteResponse",
35                    "GetQuoteDemo.GetQuoteResponse_element"}
36            );
37        }
38    }
39 }
```

User Interface

- salesforce provides VisualForce framework that lets us build custom user interfaces that can be hosted natively on Force.com platform.
- VisualForce framework uses a tag-based mark up language similar to HTML and a VisualForce controller.
- This user interface will be interacting with the Web Service using a controller.
- It is very easy to create pages on salesforce.
- Click on your Name → Setup → Develop → Pages to view or create new pages.
- We can use the “Development Mode” to design and build pages by entering a unique URL. For example, modify the URL as shown below to create a new page called “GetValuesPage”
 - <https://cs11.salesforce.com/066/e?retURL=%2Fapexpages%2Fsetup%2FlistApexPage.apexp>
 - <https://c.cs11.visual.force.com/apex/GetValuesPage>

User Interface

The image shows a Visualforce page editor interface. The top part displays a preview of a web page titled "Demo: Get Stock Quote". The page has a red header with the "ca technologies" logo on the left and the title in the center. Below the header is a blue section titled "Stock Quote" containing a text input field labeled "Enter the Company Symbol:" and a "Get Stock Details" button. Underneath is another blue section titled "Stock Details for" followed by a table with columns: Last Price, Trade Date, Trade Time, Price Change, Opening Price, High Price, Low Price, Total Volume Traded, Market Cap, Prv Close, Percentage Change, Annual Range, Total Earning, and P-E Value. The bottom part of the image shows the source code editor for the page, with the following code:

```
1 <apex:page showHeader="false" sidebar="true" Controller="GetQuoteDemoContr1">
2 <style type="text/css">
3   .bPageBlock .pbHeader {
4     background:#A9D0F5 !important;
5     font-weight:bold;
6     font-size:12pt;
7     text-align:float-left;
8   }
9   .bPageBlock .pbBody {
10    background:#FAFAFA !important;
11    font-size:10pt;
12    margin-left:50pt;
13  }
14  .outputText {
15    margin-left:200pt;
16  }
17  .mystyle {
18    background: url({!$Resource.CALOGO});
19    width=220px;
20  }
21  zoom=110%;
22 </style>
23
24 <apex:pageBlock >
25   <apex:image url="{!$Resource.CALOGO}" width="90" height="90" />
```

Position: Ln 1, Ch 1 Total: Ln 82, Ch 3250

Controller Class

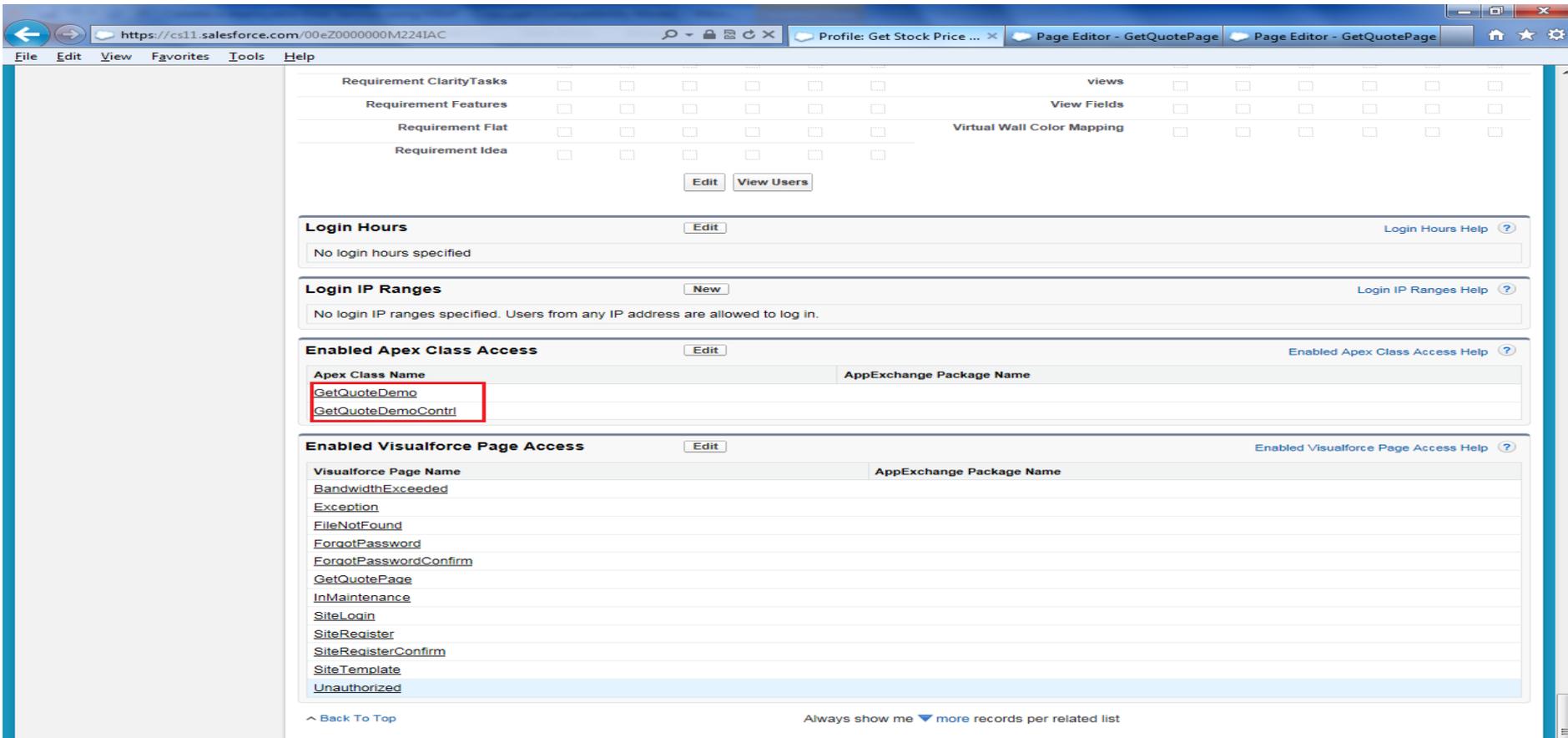
- A Visualforce controller is a set of instructions that specifies what happens when a user interacts (clicks on a button or a link) with the Visualforce page.
- It is an APEX class and, works as a link between page and the class that makes a callout to the Web Service.

Building Site

- Force.com sites enable you to create public websites and applications that are directly integrated with your salesforce.com organization—without requiring users to log in with a username and password.
- Sites are hosted on Force.com servers and are built on native Visualforce pages.
- Click on your Name → Setup → Develop → Sites to view or create new Sites.
- Attach the pages to the site and provide a unique URL for the site.

Public Access Settings

- Make sure all the APEX classes related to this application are enabled.



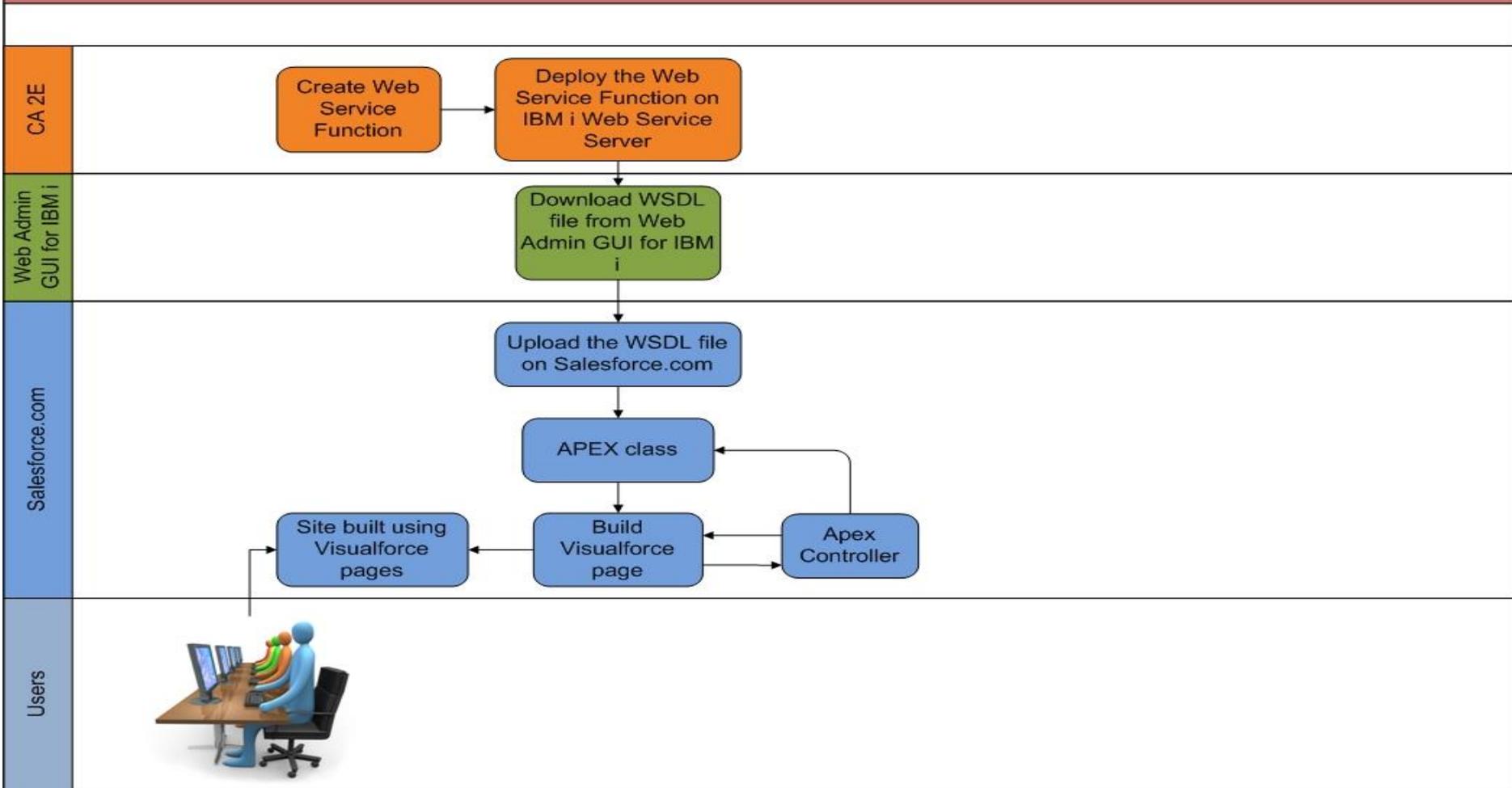
The screenshot shows the Salesforce Public Access Settings page. The browser address bar displays the URL: <https://cs11.salesforce.com/00eZ0000000M224IAC>. The page title is "Profile: Get Stock Price ...". The main content area is divided into several sections:

- Requirement ClarityTasks**: A table with columns for various settings and checkboxes.
- Requirement Features**: A table with columns for various settings and checkboxes.
- Requirement Flat**: A table with columns for various settings and checkboxes.
- Requirement Idea**: A table with columns for various settings and checkboxes.
- Login Hours**: A section with an "Edit" button and a "Login Hours Help" link. The text below reads: "No login hours specified".
- Login IP Ranges**: A section with a "New" button and a "Login IP Ranges Help" link. The text below reads: "No login IP ranges specified. Users from any IP address are allowed to log in."
- Enabled Apex Class Access**: A section with an "Edit" button and an "Enabled Apex Class Access Help" link. It contains a table with two columns: "Apex Class Name" and "AppExchange Package Name". The "Apex Class Name" column contains the following entries: [GetQuoteDemo](#) (highlighted with a red box), [GetQuoteDemoContrl](#), and [Virtual Wall Color Mapping](#).
- Enabled Visualforce Page Access**: A section with an "Edit" button and an "Enabled Visualforce Page Access Help" link. It contains a table with two columns: "Visualforce Page Name" and "AppExchange Package Name". The "Visualforce Page Name" column contains the following entries: [BandwidthExceeded](#), [Exception](#), [FileNotFound](#), [ForgotPassword](#), [ForgotPasswordConfirm](#), [GetQuotePage](#), [InMaintenance](#), [SiteLogin](#), [SiteRegister](#), [SiteRegisterConfirm](#), [SiteTemplate](#), and [Unauthorized](#).

At the bottom of the page, there is a "Back To Top" link and a "Always show me more records per related list" option.

Overall Flow

Development Process Flow



Q&A

