



Introduction to the Force.com Database

We will begin at approximately 10:05am Pacific Time

***Webinar Dial-in #
(888) 884-5895
(Int'l #: +1-706-643-9388)***

Access Code: 399528



Welcome Webinar Attendees

Webinar Attendees see 2 components:

1. Viewer Window

2. Control Panel

The screenshot displays the GoToWebinar Viewer interface. The main content area shows the webinar title "Five Keys to Success with Salesforce for Google AdWords" and a start time of "We will begin at approximately 10:05 PST". Below this, a "Welcome to today's live webinar" message provides dial-in details: US #: 1.888.884.8727, Int'l #: 1.706.643.4108, and Conference ID: 699262 followed by # sign. The interface includes a "salesforce.com" logo with the tagline "Success On Demand" and a "CITRIX" logo. A large red "ADWARE" watermark is overlaid on the left side. The control panel on the right features a "Satisfaction Level" poll with options: Great (checked), Fair, and Poor. Below the poll is a "Question and Answer" section with a "Question and Answer Log" and a "Welcome to the GoToWebinar Sneak Peek, please dial into the conference call now." message. A text input field for questions is present, with a "Send" button below it. The Windows taskbar at the bottom shows the "start" button, system tray icons, and the time "10:40 AM Tuesday 7/11/2006".



Safe Harbor Statement

“Safe harbor” statement under the Private Securities Litigation Reform Act of 1995: This presentation may contain forward looking statements including but not limited to statements concerning the potential market for our existing service offerings and future offerings. All of our forward looking statements involve risks, uncertainties and assumptions. If any such risks or uncertainties materialize or if any of the assumptions proves incorrect, our results could differ materially from the results expressed or implied by the forward-looking statements we make.

The risks and uncertainties referred to above include - but are not limited to - risks associated with possible fluctuations in our operating results and cash flows, rate of growth and anticipated revenue run rate, errors, interruptions or delays in our service or our Web hosting, our new business model, our history of operating losses, the possibility that we will not remain profitable, breach of our security measures, the emerging market in which we operate, our relatively limited operating history, our ability to hire, retain and motivate our employees and manage our growth, competition, our ability to continue to release and gain customer acceptance of new and improved versions of our service, customer and partner acceptance of the AppExchange, successful customer deployment and utilization of our services, unanticipated changes in our effective tax rate, fluctuations in the number of shares outstanding, the price of such shares, foreign currency exchange rates and interest rates.

Further information on these and other factors that could affect our financial results is included in the reports on Forms 10-K, 10-Q and 8-K and in other filings we make with the Securities and Exchange Commission from time to time. These documents are available on the SEC Filings section of the Investor Information section of our website at www.salesforce.com/investor. Salesforce.com, inc. assumes no obligation and does not intend to update these forward-looking statements, except as required by law.



What We're Going to Cover

- Force.com Database Overview
- Terminology & Fundamentals
- Demo
- How is the Force.com database different?
- Q&A

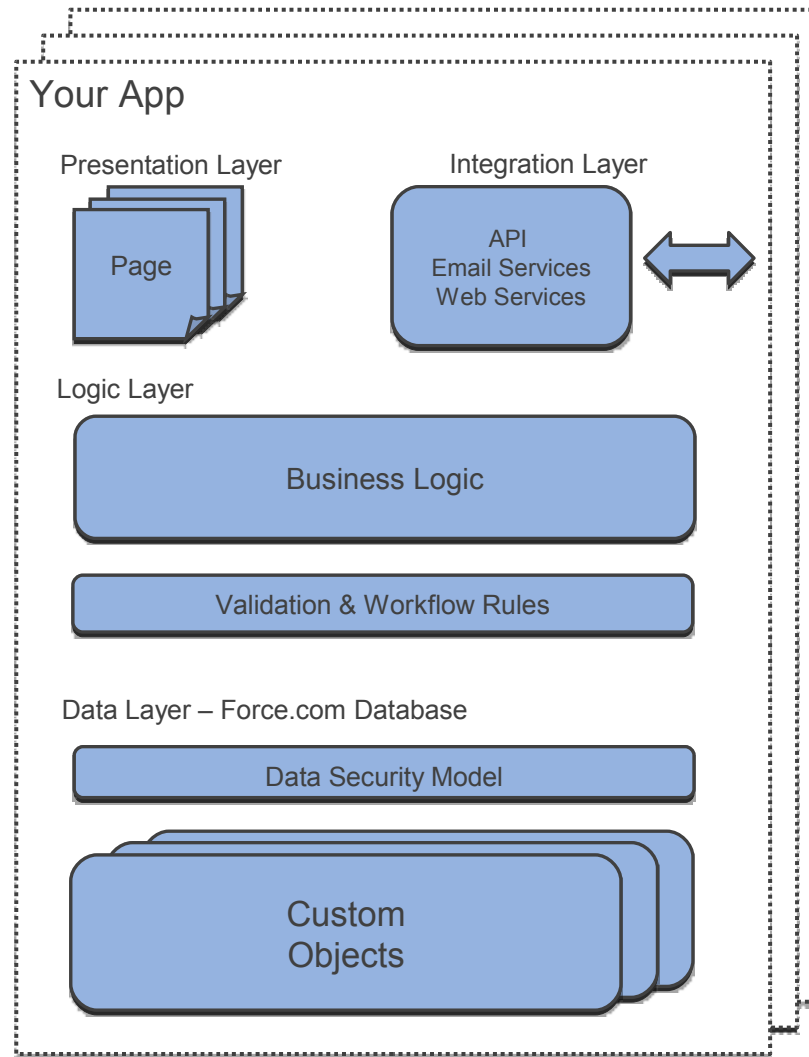


What's in it for you?

- *Force.com Database* = Database + Services (**you** get a lot of cool stuff out-of-the-box)
- *Metadata* = data about the database. (**you** get a dynamic, real time user interface and much more)
- *Productivity* = efficiency, work rate, output, yield, production. (**you** get to go home early)



Force.com Environment



Terminology

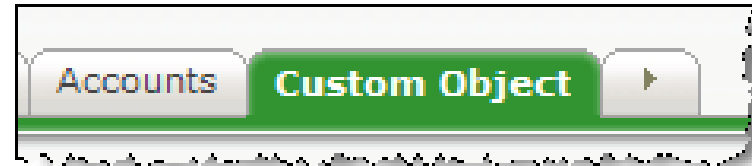
- Objects: Think Tables
- Fields: Think Column
- Relationships: Think Foreign Keys
- Record : Think row in a table



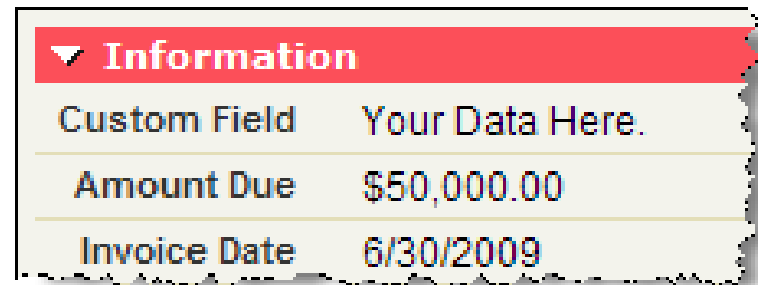
Objects & Fields

- Database tables to store persistent data
- Tabs, page layouts, related lists, and reports
- Data automatically exposed in the Force.com API
- 20 different type of custom fields:
 - Text, Date, Number
 - Formula, Email, Picklist, ...

Custom Objects



Custom Fields

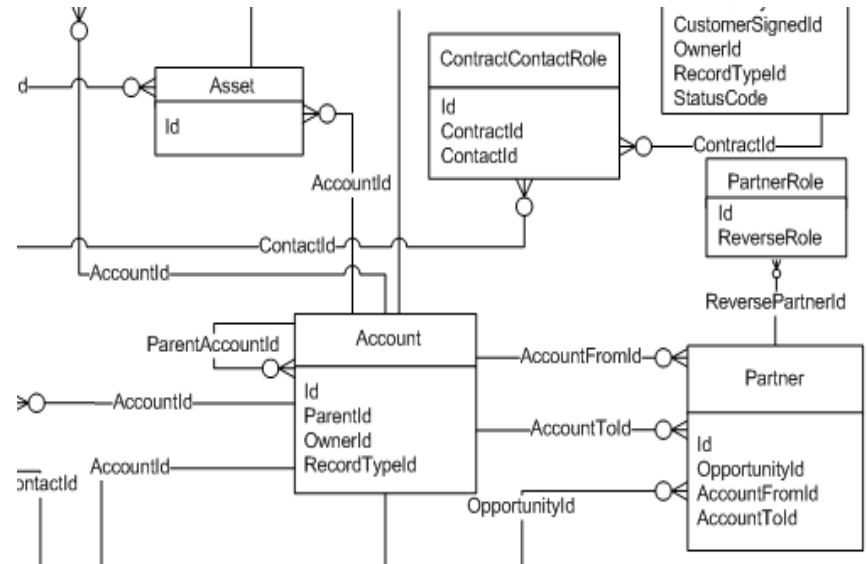
A screenshot of a table with a red header row and three data rows. The header row is labeled 'Information' with a downward-pointing triangle. The data rows show 'Custom Field' with 'Your Data Here.', 'Amount Due' with '\$50,000.00', and 'Invoice Date' with '6/30/2009'.

Information	
Custom Field	Your Data Here.
Amount Due	\$50,000.00
Invoice Date	6/30/2009



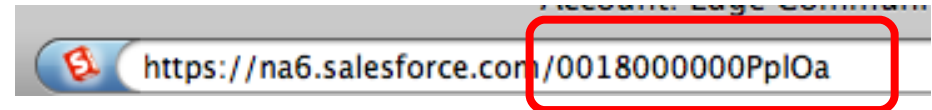
Relationships

- Build Relationships; Not Foreign Keys
- Two types: Master-Detail and Lookup
- Lookup
 - Links one object to another object.
 - Not required.
 - No cascade delete.
- Master-Detail
 - Parent-Child association
 - Required
 - Cascade Deletes
 - Enables Rollup Summary fields
- Able to support 1:1, 1:M, M:1, M:M relationships between Objects



Identity & System Fields

- ID: 15-character case sensitive unique identifier auto-generated by the Force.com system.
- For every object in the Force.com database, there are 5 default Read-Only System Fields:
 - CreatedDate
 - CreatedById
 - LastModifiedDate
 - LastModifiedBy
 - SystemModStamp
- Force.com Database automatically assigns these fields when record is created or modified.



ACTIVE	YES
Created By	<u>Andrew Albert</u> , 4/6/2009 4:17 PM
Last Modified By	<u>Andrew Albert</u> , 4/6/2009 4:17 PM



Security & Sharing

- Force.com provides granular controls to enable a flexible security model.
- Different CRUD (Create, Read, Update, Delete) permissions to different sets of Users.
- Object, Record, and Field Level Security controls.
- Manual & Automatic Sharing of Data.
- Field Level Auditing

Field Level Security

Field Name	Field Type	Visible	Read-Only
Created By	Lookup	✓	✓
Description	Text Area	✓	<input type="checkbox"/>
Due Date	Date	✓	<input type="checkbox"/>
Last Modified By	Lookup	✓	✓
Owner	Lookup	✓	<input type="checkbox"/>
TList	Lookup	✓	<input type="checkbox"/>
TodoItem Name	Text	✓	<input type="checkbox"/>

Object Level Permissions (CRUD)

	Basic Access			
	Read	Create	Edit	Delete
Accounts	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assets	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Campaigns	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cases	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contacts	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contracts	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documents	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

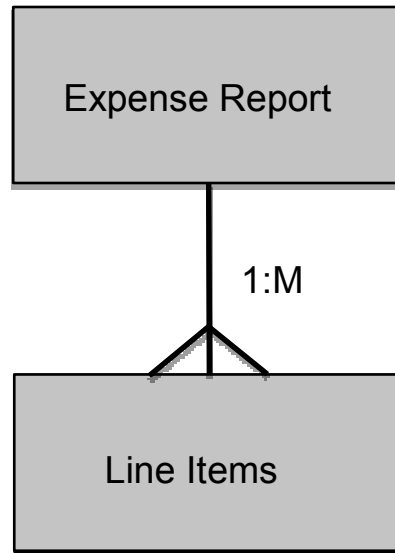


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Demo - Expense Report ER Diagram



For each Expense Report, there are many line items.



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What it's not?

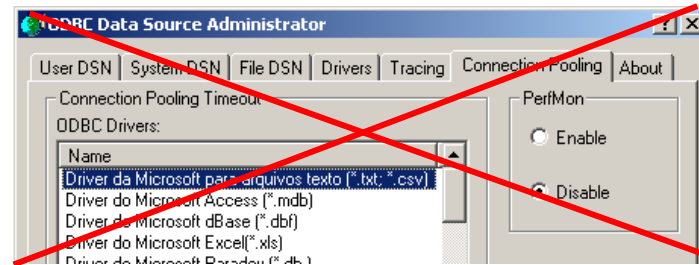
```
import java.sql.Connection;
import java.sql.DatabaseMetaData;
import java.sql.DriverManager;
import java.sql.SQLException;

public class JDBCDriverInformation {
    static String user="scott", password = "tiger";
    static String url = "jdbc:odbc:bob";

    static Connection con = null;
    public static void main(String[] args) throws Exception {
        Connection con = getOracleJDBCConnection();
        if(con!= null){
            System.out.println("Got Connection.");
            DatabaseMetaData meta = con.getMetaData();
            System.out.println("Driver Name : "+meta.getDriverName());
            System.out.println("Driver Version : "+meta.getDriverVersion());
        }else{
            System.out.println("Could not Get Connection");
        }
    }
}
```

- No DDL Scripts
- No 3rd party libraries required
- No JDBC or ODBC connections
- No database sizing or optimization
- No cursor sizing, buffer sizing, or connection pooling
- No Disk I/O Configuration

```
CREATE TABLE CONTACT(
ContactID COUNTER NOT NULL,
LastName TEXT(20) NOT NULL,
SecondName TEXT(10) NOT NULL,
FirstName TEXT(20) NOT NULL,
Title TEXT(5) NOT NULL,
CompanyID LONG NOT NULL,
EntryDate DATETIME NOT NULL,
SupervisorID NOT NULL,
CommissionPctg SINGLE NOT NULL,
AmtOwed CURRENCY NOT NULL,
CategoryID INTEGER NOT NULL,
OwesMeFavor BIT NOT NULL
);
```

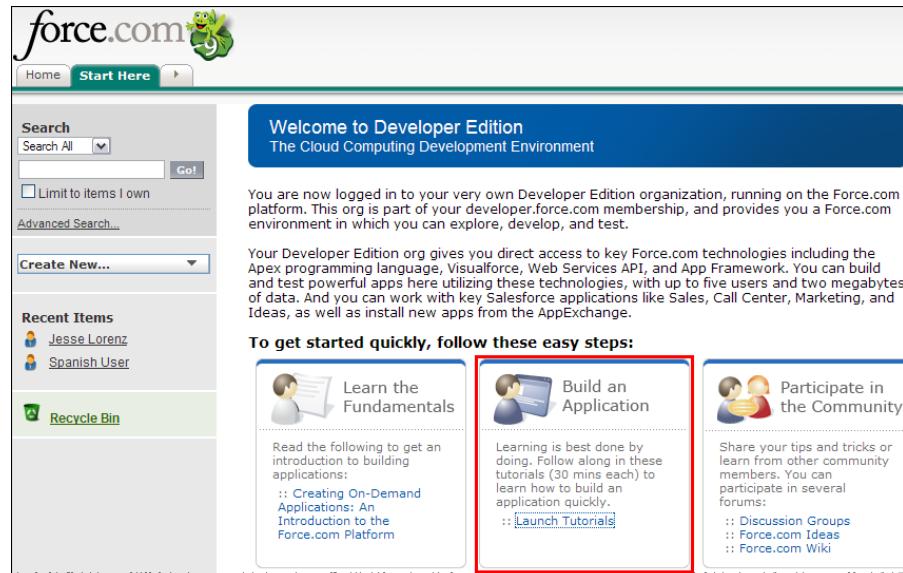


Next Steps

1. Getting Started on Developer Force

1.1 Go to: <http://developer.force.com/>

1.2 Use the Force.com Tutorials to build your first Force.com app:



1.3 Download the *Force.com Developer Guide Book*

2. Introduction to the Force.com Database Article

Developer.force.com -> Technical Library -> Database





Upcoming Tech Talks

Force.com Sites Preview: June 22nd, 10am PDT

Archived Tech Talks

Introduction to Apex Code

Visualforce Components Deep-dive

Summer '09 PreRelease Webinar

Register and Watch Recordings at
developer.force.com



Question & Answer Session



[developer.force.com](https://developer.salesforce.com)

