



Salesforce



Data Modelling
Relationships
Custom Metadata and Custom Settings
Big Objects



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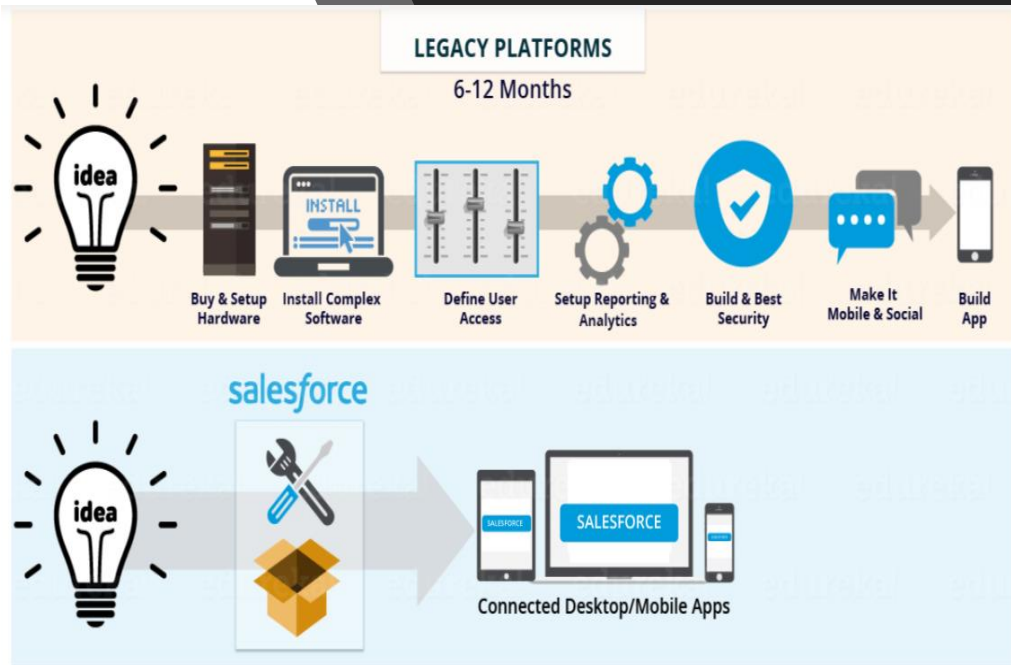
What is CRM?

Customer relationship management (CRM) is a technology for managing all your company's relationships and interactions with customers and potential customers. The goal is simple: Improve business relationships. A CRM system helps companies stay connected to customers, streamline processes, and improve profitability.

When people talk about CRM, they are usually referring to a CRM system, a tool that helps with contact management, sales management, productivity, and more.

A CRM solution helps you focus on your organization's relationships with individual people — including customers, service users, colleagues, or suppliers — throughout your lifecycle with them, including finding new customers, winning their business, and providing support and additional services throughout the relationship.

Why Salesforce?



- As seen in the image, Salesforce provides you with the fastest path from Idea to App. You can concentrate on building your app using Salesforce tools, rather than building the infrastructure and tools yourself. This can save you years of time and millions of dollars.
- Salesforce customers generally say that it's unique for three major reasons:
 - Fast – Traditional CRM software can take more than a year to deploy, compare that to months or even weeks with Salesforce.
 - Easy – Salesforce wins in the *easy to use* category hands down. You can spend more time putting it to use and less time figuring it out.
 - Effective – Because it is easy to use and can be customized to meet business needs, customers find Salesforce very effective.
- Salesforce is in the cloud, so your team can use it from anywhere with access to the internet.
- Salesforce seamlessly integrates with 3rd party apps. If you want to integrate Salesforce with Gmail you can do it, if you want to integrate it with your accounting software you can do that too. On the other hand, integration is tough with other CRMs.
- Salesforce is affordable, especially if you consider its vast variety of capabilities. Even startups and small business can use Salesforce.

What is Salesforce?

It's a top-notch CRM application built on the Force.com platform. It can manage all the customer interactions of an organization through different media, like phone calls, site email enquiries, communities, as well as social media. Salesforce handles all the customer relationships, by focusing on the sales, marketing and support processes.

Force.com platform

Force.com is a platform for creating applications in the cloud with absolutely no software or hardware investment required. The apps thus created are data-centric and collaborative.

Salesforce Data Model

A data model is the architectural structured way of storing data in an application. The Salesforce platform provides a standard model for you to customize data models for custom functionality.

A data model is more or less what it sounds like. It's a way to model what database tables look like in a way that makes sense to humans.

Think about storing data in a spreadsheet. For example, Imagine yourself working in a property dealing company : “DreamHouse” and maintaining spreadsheet to track all DreamHouse’s properties.

Columns can store the address, cost, and other important attributes. Rows can store this information for each property that DreamHouse is selling. Database tables are set up in a similar way

In Salesforce database tables are considered as **objects**, we think about columns as **fields**, and rows as **records**.

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	A	B	C	D	E	F	G
1	Property Name	Price	Bedrooms	Bathrooms	Square Footage	Price/Square Ft	Listed on
2	298 Castle St.	265,000	2	1.5	1102	240	04/01/2017
3	92 Redwood St.	429,100	3	2.5	1230	348	11/02/2016
4	111 Grand View Ct.	650,000	4	3	2494	260	09/12/2016
5	3 Arroyo Blvd.	401,000	3	2	1200	334	05/02/2017
6	6956 W 8th St.	524,600	4	3.5	2200	238	03/03/2017
7	187 Windsor Dr.	249,700	2	2	1334	187	06/09/2016
8	9958 Strawberry Ln.	390,800	3	2.5	1340	291	08/11/2016
9	5485 E 3rd St.	677,200	5	4.5	3150	214	12/12/2016
10	8348 Devonshire Dr.	767,100	6	5	3575	214	03/12/2017

Objects

Salesforce supports several different types of objects. There are standard objects, custom objects, external objects, platform events, and BigObjects. In this module, we focus on the two most common types of objects: standard and custom.

Standard objects are objects that are included with Salesforce. Common business objects like Account, Contact, Lead, and Opportunity are all standard objects.

Custom objects are objects that you create to store information that's specific to your company or industry. For DreamHouse, You wants to build a custom Property object that stores information about the homes his company is selling.

Object Relationship

Master Detail Relationship

Lookup Relationships

Junction Objects

Master Detail Relationship

While lookup relationships are fairly casual, **master-detail relationships** are a bit tighter. In this type of relationship, one object is the master and another is the detail. The master object controls certain behaviors of the detail object, like who can view the detail's data.

For example, let's say the owner of a property wanted to take their home off the market. DreamHouse wouldn't want to keep any offers made on that property. With a master-detail relationship between Property and Offer, you can delete the property and all its associated offers from your system.

Lookup Relationship

A lookup relationship essentially links two objects together so that you can “look up” one object from the related items on another object. Lookup relationships can be one-to-one or one-to-many.

In our Account to Contact, the relationship between the two objects is a **lookup relationship**. The Account to Contact relationship is one-to-many because a single account can have many related contacts. For our DreamHouse scenario, you could create a one-to-one relationship between the Property object and a Home Seller object.

Junction Object

Junction objects are used to create many to many relationships between objects.

If you take the Recruiting application example, you can see that a Position can be linked to many Candidates, and a Candidate can apply for different Positions. To create this data model you need a third object "Job Application" that links the 2.

You'd create a lookup field for both Position and Candidate object on the "Job Application" object. This will establish many to many relationship between Position and Candidate via the "Job Application" object known as the junction object.

Custom Settings

Custom settings enable you to create custom sets of data, as well as create and associate custom data for an organization, profile, or specific user.

You can control the visibility of custom setting by specifying it as public or protected. If custom setting is marked as protected, the subscriber organization will not be able to access the custom setting. If it is marked as public, then subscriber org can also access it.

There are 2 types of custom setting, List and Hierarchy. Once you create custom setting, then you cannot change the type (List to hierarchy or vice versa).

List custom setting provides a reusable set of static data that can be accessed across your organization to all user.

Hierarchy custom setting uses a built-in hierarchical logic that lets you “personalize” settings for specific profiles or users. In Hierarchy custom setting for logged in user, system first check user then profile and then org wide setting in order to return data from hierarchy custom setting.

A shipping application requires users to fill in the country codes for international deliveries. By creating a list setting of all country codes, users have quick access to this data without needing to query the database.

Custom Metadata

Custom metadata are like custom setting but records in custom metadata type considered as metadata rather than data. These are typically used to define application configurations that need to be migrated from one environment to another, or packaged and installed.

Custom Metadata Types have WAY more options than Custom Settings, like picklist fields, long text areas (in Spring '17), page layouts, and validation rules.

You can control the visibility of Custom Metadata Types by specifying it as public or protected. If it is marked as public type, then anyone can see it. If it is marked as protected type, in the installed managed package subscriber organization, only Apex code in that managed package can use it.

You can create lookups between Custom Metadata objects.

Metadata Relationship provides the ability to add relationships from your custom metadata to other things in your app, such as other custom metadata, custom or standard objects and fields, and static resources.

Big Objects

A big object stores and manages massive amounts of data on the Salesforce platform. You can archive data from other objects or bring massive datasets from outside systems into a big object to get a full view of your customers. Clients and external systems use a standard set of APIs to access big object data. A big object provides consistent performance, whether you have 1 million records, 100 million, or even 1 billion. This scale gives a big object its power and defines its features.

Standard big objects—Objects defined by Salesforce and included in Salesforce products. FieldHistoryArchive is a standard big object that stores data as part of the Field Audit Trail product. Standard big objects are available out of the box and cannot be customized.

Custom big objects—New objects that you create to store information unique to your org. Custom big objects extend the functionality that Lightning Platform provides. For example, if you're building an app to track product inventory, create a custom big object called HistoricalInventoryLevels to track historical inventory levels for analysis and future optimizations. This implementation guide is for configuring and deploying custom big objects.

Training Links

<https://www.apexhours.com/model-your-salesforce-data/>

https://trailhead.salesforce.com/content/learn/modules/data_modeling?trail_id=force_com_admin_beginner

https://trailhead.salesforce.com/content/learn/modules/custom_metadata_types_dec/cmt_create

Thank You !

