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Configuration in Disguise

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clicks 2 code
@clicks2code

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What is configuration in disguise?

1. Configuration (point and click customization/setup) has a meaningful impact to development.

   Configuration → Development

   Development → Configuration

2. Can view development and not know configuration is a driving factor.
3. Development: Code or declarative.

Why configuration?

Code

- **Cost and time** – what will the resources for custom development cost and how long will it take?
- **Maintenance** – who's going to maintain the code after the initial development?
- **Complexity and Scalability** – code can introduce various degrees of complexity. More code typically introduces more complexity and complexity can be hard to manage in terms of scalability.

Clicks

- **Cost and time** – using declarative development features is fast!
- **Maintenance** – there is no code and test automation needs to be maintained when using native features and declarative customizations.
- **Complexity and Scalability** – can still build complex things without having to write code, but there is less to worry about in terms of governor limits as they don't apply to declarative customization. You still have limits but they are design focused (number of workflow rules, or number of custom fields) rather than execution limits (number of SOQL queries issued, DML statements, CPU time, etc)

What kind of configuration?

WARNING documentation and definitions ahead.

1. Custom Settings
2. Custom Labels
3. Fields Sets

Custom Settings

Custom settings are **similar to custom objects** and enable application developers to create **custom sets of data**, as well as create and **associate custom data for an organization, profile, or specific user**. All custom settings data is exposed in the application cache, which enables efficient access without the cost of repeated queries to the database. This data can then be used by formula fields, validation rules, flows, Apex, and the SOAP API.

Hierarchy and List Custom Settings

List Custom Settings

A type of custom setting that provides a **reusable set of static data** that can be accessed across your organization. If you use a particular set of data frequently within your application, putting that data in a list custom setting **streamlines access to it**. Data in list settings **does not vary with profile or user, but is available organization-wide**. Examples of list data include two-letter state abbreviations, international dialing prefixes, and catalog numbers for products. Because the data is cached, access is low-cost and efficient: you don't have to use SOQL queries that count against your governor limits.

Hierarchy Custom Settings

A type of custom setting that uses a **built-in hierarchical logic that lets you “personalize” settings for specific profiles or users**. The hierarchy logic checks the organization, profile, and user settings for the current user and returns the most specific, or “lowest,” value. In the hierarchy, settings for an organization are overridden by profile settings, which, in turn, are overridden by user settings.

Accessing Custom Settings

Declarative	
Formulas	`{!$Setup.CustomSettingName__c.CustomFieldName__c}`

Apex	

List	`Map<String_dataset_name, CustomSettingName__c> mcs = CustomSettingName__c.getAll();`
	`CustomSettingName__c mc = CustomSettingName__c.getValues(data_set_name);`

Hierarchy	`CustomSettingName__c mc = CustomSettingName__c.getOrgDefaults();`
	`CustomSettingName__c mc = CustomSettingName__c.getInstance(Profile_ID);`

Custom Labels

Custom labels are **custom text values** that can be **accessed from Apex classes, Visualforce pages, or Lightning components**. The values can be translated into any language Salesforce supports. Custom labels enable developers to create multilingual applications by automatically presenting information (for example, help text or error messages) in a user's native language.

- In Apex use the `System.Label.`**`Label_name`** syntax.
- In Visualforce and Lightning components, use the `$Label` global variable.

Field Sets

A field set is a **grouping of fields**. For example, you could have a field set that contains fields describing a user's first name, middle name, last name, and business title. **When a field set is added to a Visualforce page, developers can loop over its fields and render them.** If the page is added to a managed package, **administrators can add, remove, or reorder fields in a field set to modify the fields presented on the Visualforce page without modifying any code**. The same Visualforce page can present different sets of information, depending on which fields a subscriber prefers to keep.

Why is this important?

Why admin’s should care about this:

1. Configuration is more accessible and easy to change.
2. Developers may not think of this, or are new to the platform.
3. Opportunity to be more engaged in development process.

Why developers should care about this:

1. Opportunity to empower non-coders or non-developers.
2. Less revisions and maintenance.
3. Easier code management.

Both: Change Control

Use Cases

Id Monitoring

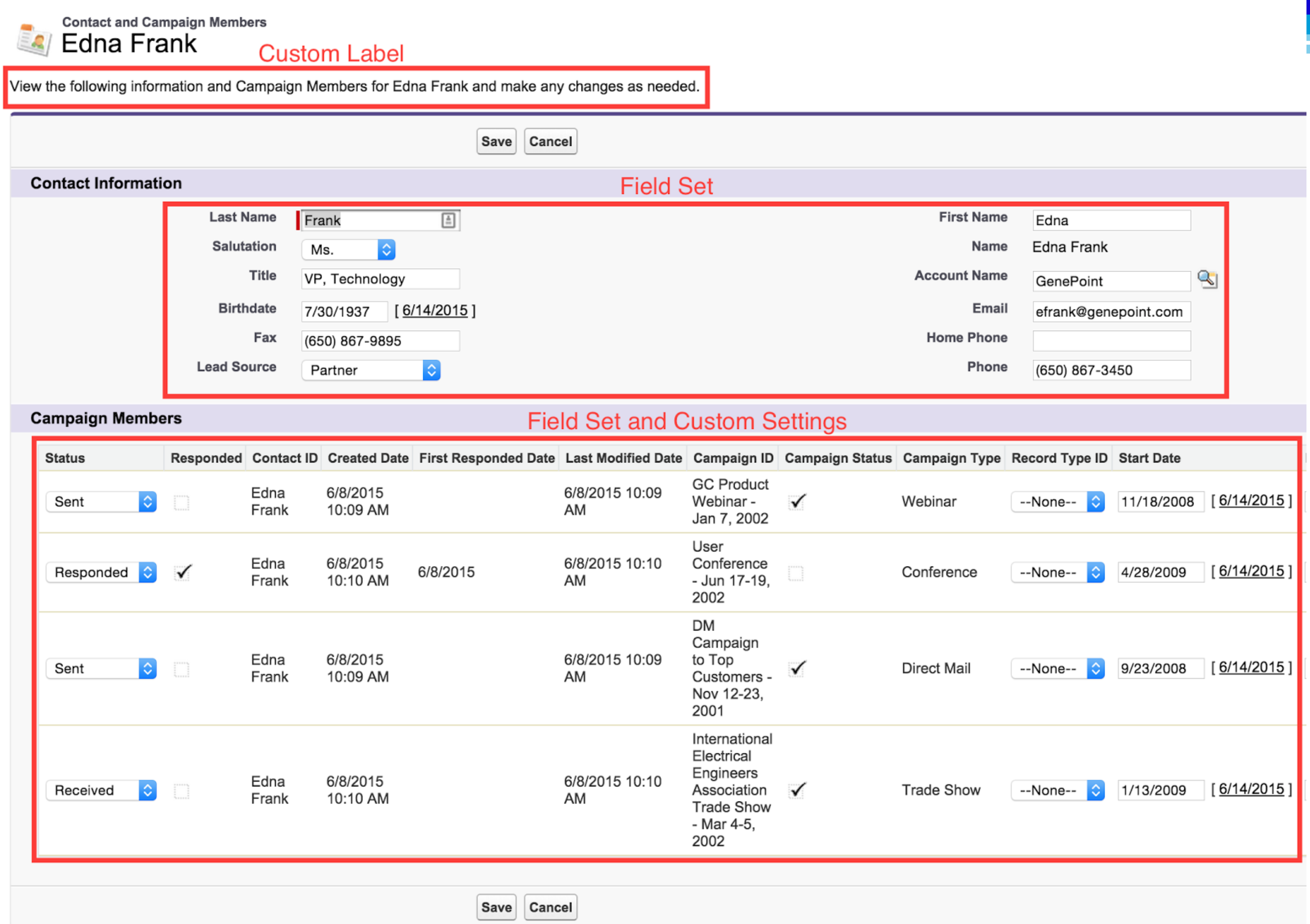
Picklist Value Monitoring

Turn Functionality On or Off

Section of Fields for Visualforce Pages

Welcome Messaging

Demo



Contact and Campaign Members

Edna Frank

Custom Label

View the following information and Campaign Members for Edna Frank and make any changes as needed.

Contact Information

Field Set

Last Name	Frank	First Name	Edna
Salutation	Ms.	Name	Edna Frank
Title	VP, Technology	Account Name	GenePoint
Birthdate	7/30/1937 [6/14/2015]	Email	efrank@genepoint.com
Fax	(650) 867-9895	Home Phone	
Lead Source	Partner	Phone	(650) 867-3450

Campaign Members

Field Set and Custom Settings

Status	Responded	Contact ID	Created Date	First Responded Date	Last Modified Date	Campaign ID	Campaign Status	Campaign Type	Record Type ID	Start Date
Sent	☐	Edna Frank	6/8/2015 10:09 AM		6/8/2015 10:09 AM	GC Product Webinar - Jan 7, 2002	✓	Webinar	--None--	11/18/2008 [6/14/2015]
Responded	✓	Edna Frank	6/8/2015 10:10 AM	6/8/2015	6/8/2015 10:10 AM	User Conference - Jun 17-19, 2002	☐	Conference	--None--	4/28/2009 [6/14/2015]
Sent	☐	Edna Frank	6/8/2015 10:09 AM		6/8/2015 10:09 AM	DM Campaign to Top Customers - Nov 12-23, 2001	✓	Direct Mail	--None--	9/23/2008 [6/14/2015]
Received	☐	Edna Frank	6/8/2015 10:10 AM		6/8/2015 10:10 AM	International Electrical Engineers Association Trade Show - Mar 4-5, 2002	✓	Trade Show	--None--	1/13/2009 [6/14/2015]

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Demo Items

Custom Page (Visualforce/Apex)

Custom Button on Standard Page Layout

The configuration in disguise

Custom Label: Welcome message with instructions.(ContactCMEdit_Label)

Custom Setting - Hierarchy: Single filtering values. (Environment_Settings__c)

Custom Setting - List: Multiple filtering values. (Campaign_Type_Filter__c)

Field Set(s): Contact fields and Campaign Member fields.

(ContactCMEdit for Contact, CM_Contact for Campaign Member)

Advanced Options

-Calling Flow from code.

-Calling code from Process Builder and Flow.

Demo calling flow.

Summary

Configuration can drive Development

Cost and Time, Maintenance, Complexity and Scalability

github repo: https://goo.gl/hzADUv

Resources

Clicks vs Code https://developer.salesforce.com/blogs/engineering/2014/12/forcedotcom-declarative-development.html

Custom Settings: https://help.salesforce.com/apex/HTViewHelpDoc?id=cs_about.htm

Custom Labels: https://help.salesforce.com/HTViewHelpDoc?id=cl_about.htm&language=en_US

Field Sets: https://help.salesforce.com/HTViewHelpDoc?id=fields_about_field_sets.htm

Calling Flow from Apex: http://andyinthecloud.com/2014/10/26/calling-flow-from-apex/

questions

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