



Training: Drupal Development with CiviCRM Entity

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New to CiviCRM With Drupal?

A Drupal 11.2 and CiviCRM 6.4 composer template starting point with Drupal integration modules

<https://github.com/jackrabbithanna/drupal11-civicrm-proto>

Manage CiviCRM Extensions with composer

<https://github.com/skvare/civicrm-extension-plugin/>

CiviCRM Entity

Project page / issue queue: https://www.drupal.org/project/civicrm_entity

New development happens on github:

https://github.com/eileenmcnaughton/civicrm_entity

Make PRs to contribute

Demo Modules

Module used in this presentation

https://github.com/jackrabbithanna/civicrm_entity_development_demo

Example Views Bulk Operation action

https://github.com/jackrabbithanna/civicrm_entity_vbo_example

CiviCRM Service

To use CiviCRM objects and methods in a Drupal module:

```
\Drupal::service('civicrm')->initialize();
```

```
$contact_id = \CRM_Core_Session::singleton()->getLoggedInContactID();
```

Provided by the CiviCRM Core module

<https://github.com/civicrm/civicrm-drupal-8/blob/master/src/Civicrm.php#L25>

Can be used with dependency injection

CiviCRM Entity API service

Drupal service wrapper around CiviCRM APIv3

Example: APIv3 get contact with id=3

```
\Drupal::service('civicrm_entity.api')->get('Contact', ['id' => 3]);
```

Service automatically calls the civicrm service initialize() method

Example of dependency injection

https://github.com/jackrabbithanna/civicrm_entity_development_demo/blob/main/src/Plugin/views/field/Age.php#L57

Reference:

<https://www.drupal.org/docs/drupal-apis/services-and-dependency-injection/services-and-dependency-injection-in-drupal#s-using-dependency-injection>

Altering integrated entity types

https://github.com/jackrabbithanna/civcrm_entity_development_demo/blob/main/civcrm_entity_development_demo.module#L20

Alter existing types

Add new types

Remove existing types

`hook_civcrm_alter_drupal_entities()` can be implemented in Drupal modules or CiviCRM Extensions

Adding entity types

Requires:

APIv3 entity type with get, getfields, create, delete actions

(Support us to remove dependency on APIv3)

Requires an 'id' property

Set Drupal entity type / Civi table as index in the array

Set "civicrm entity label" property for entity type label in Drupal

Set "civicrm entity name" as the APIv3 entity type name, e.g. "Contact"

Set "label property" for API property to use for individual entity labels

Entity access control

https://github.com/jackrabbithanna/civicrm_entity_development_demo/blob/main/civicrm_entity_development_demo.module#L59

Reference:

https://api.drupal.org/api/drupal/core%21lib%21Drupal%21Core%21Entity%21entity.api.php/function/hook_ENTITY_TYPE_access/11.x

In this example, for CiviCRM Contact entities, if the operation is “view”, then if Contact type is “Organization” grant access, otherwise deny access

Field Access Control

https://github.com/jackrabbithanna/civicism_entity_development_demo/blob/main/civicism_entity_development_demo.module#L78

Reference:

https://api.drupal.org/api/drupal/core%21lib%21Drupal%21Core%21Entity%21entity.api.php/function/hook_entity_field_access/11.x

In this example, if field “organization_name” and user is not an ‘administrator’ role, deny access

Age - Views field plugins

Display contact's age based on birth date as a field in a View

Register plugins with Drupal:

https://github.com/jackrabbithanna/civicrm_entity_development_demo/blob/main/civicrm_entity_development_demo.module#L93

Views field plugin:

https://github.com/jackrabbithanna/civicrm_entity_development_demo/blob/main/src/Plugin/views/field/Age.php

Age Views filter plugin

Filter a View based on Age, as derived from contact's birth date

https://github.com/jackrabbithanna/civicrm_entity_development_demo/blob/main/src/Plugin/views/filter/Age.php

Filters require configuration schema

https://github.com/jackrabbithanna/civicrm_entity_development_demo/blob/main/config/schema/civicrm_entity_development_demo.views.schema.yml

Theme CiviCRM Entities

Override default template

Engage field_group etc.. via preprocess functions:

<https://gist.github.com/jackrabbithanna/05dc85598e855609d63db905b090fa3>

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Contribute to CiviCRM Entity Development

CiviCRM Entity is a large and complex Drupal module
Requires esoteric knowledge of both Drupal and CiviCRM

We spend time on its maintenance and improvement

<https://skvare.com/contact> to help support CiviCRM Entity development

jackrabbithanna in chat.civicrm.org