Content Entity Entity Query

ENTITY, NODE, TERM, USER

```
\Drupal\Core\Access\AccessibleInterface
\D…\Core\Cache\CacheableDependencyInterface
\Drupal\Core\Entity\ContentEntityBase
\Drupal\Core\Entity\ContentEntityInterface
\Drupal\Core\Entity\EntityInterface
```

Content entities: 'aggregator_feed', 'aggregator_item', 'block_content', 'comment', 'contact_message', 'file', 'menu_link_content', 'menu_link_content', 'node', 'shortcut', 'taxonomy_term', 'user'.

```
$entity = Entity::create($values); P
$entity = Entity::load($id); P
$entities = Entity::loadMultiple($ids); P
$entity->save();
$entity->delete();

$entity_id = $entity->id();
$bundle = $entity->bundle();
$not_saved = $entity->isNew();
$can_edit = $entity->access('edit',
  $account);
```

```
\Drupal\node\NodeInterface
\Drupal\node\Entity\Node
\Drupal\user\EntityOwnerInterface
```

```
$node = $this->entityTypeManager
  ->getStorage('node')
  ->load($nid);
$node = Node::load($nid); P
$node->save();
$node->delete();

$node_type = $node->getType();
$title = $node->getTitle();
$visible = $node->isPublished();
$node->setPromoted(TRUE);
$uid = $node->getOwnerId();
$author = $node->getOwner();
```

```
Drupal\taxonomy\TermInterface
Drupal\taxonomy\Entity\Term
```

```
$term = $this->entityTypeManager
  ->getStorage('taxonomy_term')
  ->load($tid);
$term = Term::load($tid); P
```

```
$children = $this->entityTypeManager
  ->getStorage('taxonomy_term')
  ->loadChildren($tid);
$tree = $this->entityTypeManager
  ->getStorage('taxonomy_term')
  ->loadTree($vid, 0, NULL, TRUE);

$vocabulary = $term->getVocabularyId();
$term_name = $term->getName();
$description = $term->getDescription();
$sort = $term->getWeight();
```

```
\Drupal\user\UserInterface
\Drupal\user\Entity\User
```

```
$user = User::load($uid); P
$is_admin = $user->hasRole($role_id);
$is_active = $user->isActive();
$first_name = $user->field_name->value;
```

```
\Drupal\file\FileInterface
\Drupal\file\Entity\File
```

```
$image = File::load($fid); P
$name = $file->getFilename()
$uri = $file->getFileUri();
$mime_type = $file->getMimeType();
$size = $file->getSize();
$temp_file = $file->isTemporary();
```

ENTITY TRANSLATION

```
\Dru…\Core\TypedData\TranslatableInterface
```

```
$language = $entity->language();
$translatable = $entity->isTranslatable();
$default = $entity->isDefaultTranslation();
$in_dutch = $entity->hasTranslation('nl');
addTranslation($langcode, $values);
$dutch_content = $entity
  ->getTranslation('nl');
```

ENTITY REVISIONS

```
\Drupal\Core\Entity\RevisionableInterface
```

```
$is_new = $entity->isNewRevision();
$default = $entity->isDefaultRevision($new);
$entity->setNewRevision($value);
$revision_id = $entity->getRevisionId();
```

ENTITY FIELDS

```
\Drup…\Core\Entity\FieldableEntityInterface
\Drupal\Core\Field\FieldItemInterface
\Drupal\Core\Field\FieldItemListInterface
\Drupal\Core\TypedData\TypedDataInterface
```

```
$body_text = $node->body->value;
$body_text = $node->get('body')->value;
$body_array = $node->body->getValue();
```

$body_text	example: ' Hello! '
$body_array	example: array(0 => array('value' => ' Hello! ', 'summary' => '', 'format' => 'basic_html',))

```
$field_item_list = $entity
  ->get('field_name');
$fields_array = $entity->toArray();
$field_item_lists = $entity->getFields();
```

$fields_array	Array of raw values per field.
$field_item_lists	Array of FieldItemList per field.

```
$text_format = $node->body->format;
$third_tag_id = $node->field_tags[2]
  ->target_id;

$has_body = $node->hasField('body');
$empty_body = $node->body->isEmpty();
$fields = $node->getTranslatableFields();
$entity->set('title', 'New title');

$field_names = array_keys($node
  ->getFields());
$field_names = array_keys($this
  ->entityFieldManager
  ->getFieldDefinitions('node', 'article'));
$definition = $entity
  ->getFieldDefinition('field_name');
```

Node field names: 'nid', 'uuid', 'vid', 'type', 'langcode', 'title', 'uid', 'status', 'created', 'changed', 'promote', 'sticky', 'revision_timestamp', 'revision_uid', 'revision_log', 'path', 'body', 'comment', 'field_image', 'field_tags'.

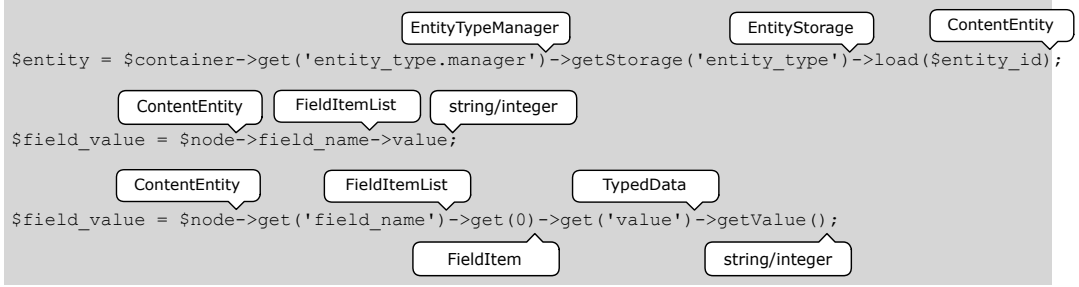
```
$field_properties = array_keys($node
  ->getFieldDefinition('body')
  ->getFieldStorageDefinition()
  ->getPropertyDefinitions());
```

Text plain field properties: 'value'.
Text formatted field properties: 'value', 'format', 'processed'.
Text with summary field properties: 'value', 'format', 'processed', 'summary', 'summary_processed'.
Taxonomy entity reference field properties: 'target_id', 'entity'.
File entity reference field properties: 'target_id', 'entity', 'display', 'description'.
Image entity reference field properties: 'target_id', 'entity', 'display', 'description', 'alt', 'title', 'width', 'height'.
Date field properties: 'value', 'date'.

ENTITY REFERENCE FIELDS

```
$vid = $node->field_tags->entity
  ->getVocabularyId();
$uri = $node->field_file->entity
  ->getFileUri();

$name = $node->getOwner()->getDisplayName();
$roles = $node->getOwner()->getRoles();
```



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ENTITY STORAGE

```
\Drupal\Core\Entity\EntityStorageInterface
\D…\Core\Entity\Sql\SqlContentEntityStorage
hook_entity_*()
* = create, load, insert, update, view,
  view_alter, view_mode_alter,
  view_display_alter, prepare_view,
  presave, predelete, delete.
hook_ENTITY_TYPE_*()
* = create, load, insert, update, view,
  view_alter, presave, predelete, delete.
```

```
$this->entityStorage = $container
  ->get('entity_type.manager')
  ->getStorage('entity_type');
$entity_storage = \Drupal::
  entityTypeManager()
    ->getStorage('entity_type'); P

$entity = $this->entityStorage
  ->load($entity_id);
$entities = $this->entityStorage
  ->loadMultiple($entity_ids);
$revision = $this->entityStorage
  ->loadRevision($revision_id);

$entity = $this->entityStorage
  ->create($entity_values);
$this->entityStorage->delete($entities);
$this->entityStorage->save($entity);
```

ENTITY VIEW

```
\Dr…\Core\Entity\EntityViewBuilderInterface
\Drupal\Core\Entity\EntityViewBuilder
```

```
$this->viewBuilder = $this
  ->entityTypeManager
  ->getViewBuilder('node');
$view_builder = \Drupal::entityTypeManager()
  ->getViewBuilder('node'); P
$build = $view_builder
  ->view($node, 'teaser');
```

ENTITY ACCESS

```
\Drupal\Core\Access\AccessibleInterface
hook_entity_*()
hook_ENTITY_TYPE_*()
* = access, create_access, field_access.
```

```
$entity->access($operation);
$entity->field_name->access($operation);
```

Entity access operations: view, create, update, delete.
Entities can define additional operations.
Entity field_access operations: view, edit.

ENTITY QUERY

```
\Drupal\Core\Config\Entity\Query\Query
\Drupal\Core\Entity\Query\QueryFactory
\Drupal\Core\Entity\Query\QueryInterface
```

```
$this->entityQuery = $container
  ->get('entity.query');

$query = $this->entityQuery
  ->getAggregate('node');
$query =\Drupal::
  entityQueryAggregate('node'); P

$node_ids = $this->entityQuery->get('node')
  ->condition('type', 'article')
  ->condition('status', 1)
  ->execute();

$query = $this->entityQuery
  ->get('aggregator_feed');
$or_condition = $query->orConditionGroup()
  ->condition('title', $feed->label())
  ->condition('url', $feed->getUrl());
$duplicates = $query
  ->condition($or_condition)
  ->execute();
```

Condition operators (3rd param):
'=', '<>', '>', '>=', '<', '<=',
'STARTS_WITH', 'CONTAINS',
'ENDS_WITH', 'IN', 'NOT IN',
'BETWEEN'.

ENTITY QUERY: RANGE, SORT, PAGER

```
$name_taken = (bool) $this->entityQuery
  ->get('user')
  ->condition('name', $name)
  ->range(0, 1)
  ->count()
  ->execute();

$sorted_terms = $this->entityQuery
  ->get('taxonomy_term')
  ->sort('weight')
  ->sort('name')
  ->addTag('term_access')
  ->execute();

$entity_query = $this->queryFactory
  ->get('user')
  ->condition('uid', 0, '<>')
  ->pager(50);
$header = $this->buildHeader();
$entity_query->tableSort($header);
$uids = $entity_query->execute();
```

SERVICES

```
entity.query
entity.repository
entity_display.repository
entity_field.manager
entity_type.bundle.info
entity_type.manager
entity_type.repository
```

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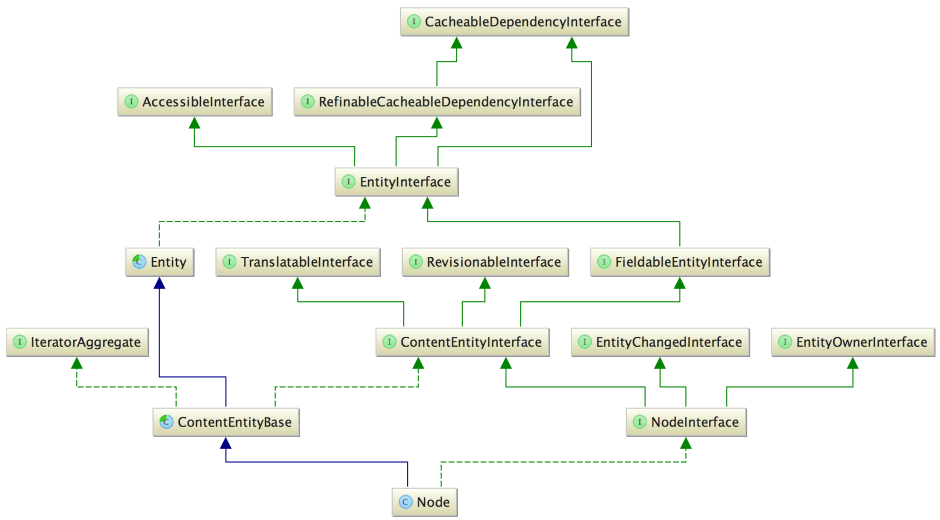
DOCUMENTATION

Entity API docs: api.drupal.org
Community documentation: Entity API - Drupal 8
Hooks: file entity.api.php

P = Procedural code. Do not use this in OO code because it can not be unit tested or replaced.



QueryFactory | Query | array

```
$query = $container->get('entity.query')->get('content_type')->execute();
```

EntityTypeManager | EntityViewBuilder | (render) array

```
$build = $this->entityTypeManager->getViewBuilder('node')->view($node, 'teaser');
```