

# Entity in Detail

Entity in Detail

Entity Specification

Tabs: General | Columns | Indices | Constraints | References | Project Management | Quality | Comments

Name: Photo

Domain: <Unspecified>

Full-text index: ... Remove

Discriminator column: <Unspecified>

Version column: <Unspecified>

Schema: ...

Data model: Physical

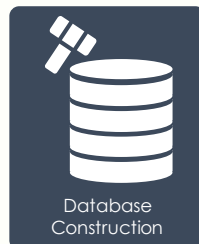
Tablespace: ...

DDL clauses: ...

Description: [Rich Text Editor]

Buttons: Reset, OK, Cancel, Apply, Help

You specify entity's details for...



Database  
Construction



Maintain Common  
Understanding

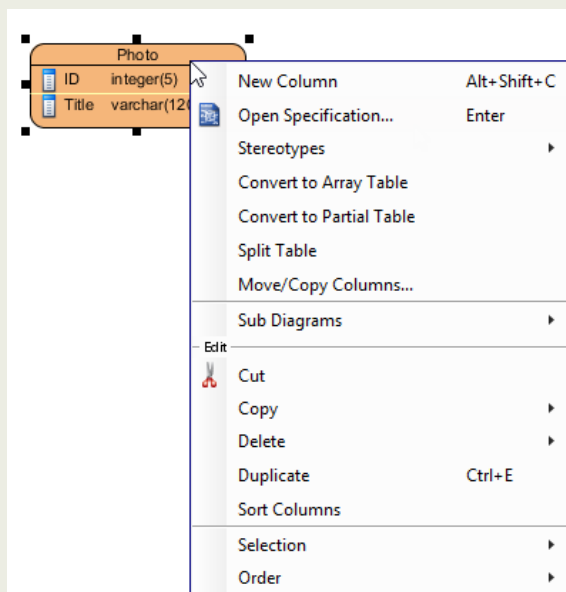


Keep Record

Entity in Detail

## Opening entity specification

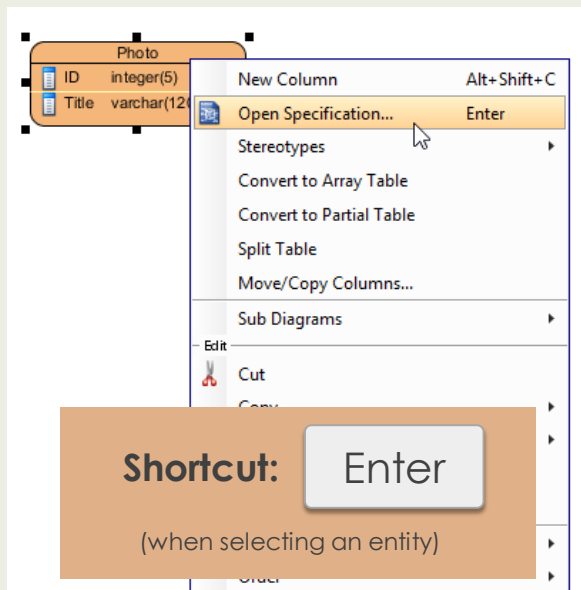
1. Right click on an entity.



Entity in Detail

## Opening entity specification

1. Right click on an entity.
2. Select **Open Specification...** from the popup menu.



Entity in Detail

## Opening entity specification

Entity in Detail

## Entity details ■ Domain

- A named set of property values that can be re-used by an entity.

Entity in Detail

Entity details ■ Domain ■ Examples



## Log

**Schema:** Logging  
**Columns:** Log\_Time,  
 Event\_Desc,  
 Log\_Msg



## Transaction

**Columns:** T\_Init\_Time,  
 T\_End\_Time

Entity in Detail

Entity details ■ Domain ■ Examples

- A named set of property values that can be re-used by an entity.
- Usage notes:
  1. Create a domain for commonly entered values such as schema, description templates and default column assignment.
  2. Re-use it in other entities when needed.
- Benefits
  - Save time in creating **similar** entities
  - Keep data model consistent

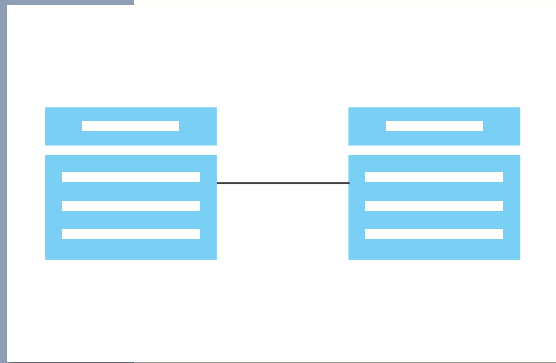
Entity in Detail



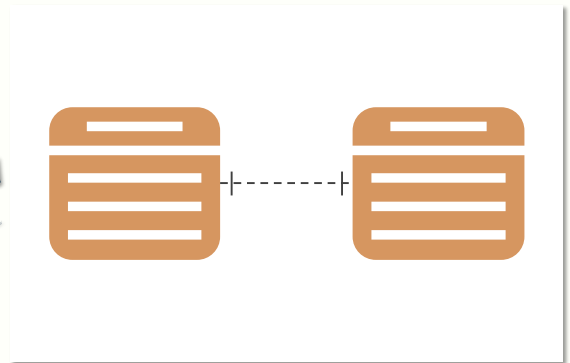
Entity details

Discriminator Column

Explanation



System Design



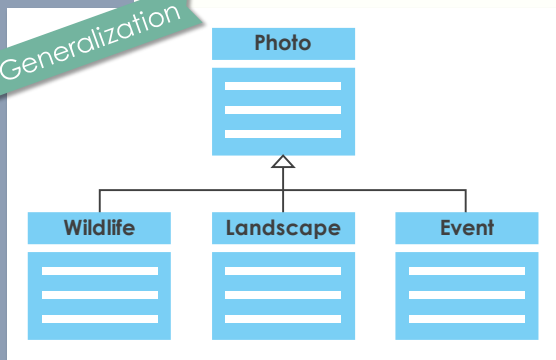
Database Design

Entity in Detail

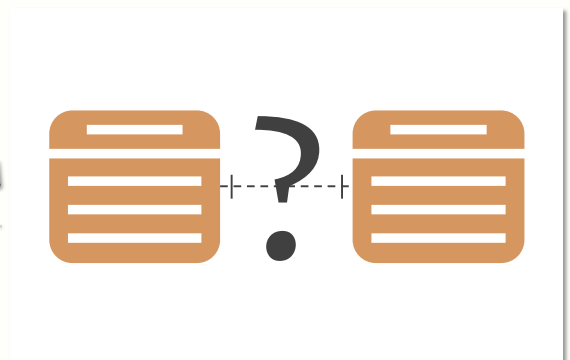
Entity details

Discriminator Column

Explanation



System Design



Database Design

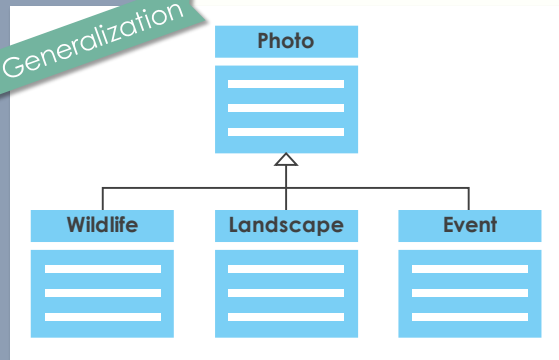
Entity in Detail

Entity details

Discriminator Column

Explanation

Generalization



System Design

Table Per Class Hierarchy



Database Design

Entity in Detail

Entity details

Discriminator Column

Explanation

ID	Title	Discriminator
1	Seattle Art Museum	Landscape
2	Dalian Library	Landscape
3	Owl having breakfast	Wildlife
4	Olympic game	Event

Entity in Detail

## Entity details

## Discriminator Column

## Explanation

The screenshot shows the 'Entity Specification' dialog box with the 'Columns' tab selected. The 'Name' field is set to 'Photo'. The 'Domain' is set to '<Unspecified>'. The 'Full-text index' is set to 'Remove'. The 'Discriminator column' dropdown is set to 'Discriminator'. The 'Version column' is set to '<Unspecified>'. The 'Schema' is set to 'ID'. The 'Data model' is set to 'Title'. The 'Tablespace' is set to 'Discriminator'. The 'DDL clauses' field is empty. The 'Description' field contains the text 'B' followed by a list of icons. The 'Reset', 'OK', 'Cancel', 'Apply', and 'Help' buttons are at the bottom.

- A column for storing values that can be used to identify the type the record belongs to within a class hierarchy.
- Usage notes:
  1. Select a column as the discriminator column
  2. Make sure the ERD is synchronized with class diagram
  3. Set the value when inserting data into database

Entity in Detail

## Entity details

## Version Column

The screenshot shows the 'Entity Specification' dialog box with the 'Columns' tab selected. The 'Name' field is set to 'Photo'. The 'Domain' is set to '<Unspecified>'. The 'Full-text index' is set to 'Remove'. The 'Discriminator column' is set to '<Unspecified>'. The 'Version column' dropdown is set to 'Version'. The 'Schema' is set to '<Unspecified>'. The 'Data model' is set to 'ID'. The 'Tablespace' is set to 'Version'. The 'DDL clauses' field is empty. The 'Description' field contains the text 'B' followed by a list of icons. The 'Reset', 'OK', 'Cancel', 'Apply', and 'Help' buttons are at the bottom.

- Used by Hibernate. The version column holds the version number and is used for Hibernate optimistic locking.
- Usage notes:
  1. Select the column to store version number.
  2. Store version data when using the generated ORM.

Details about the use of Version column can be found at:  
<https://docs.jboss.org/hibernate/orm/4.0/devguide/en-US/html/ch05.html>

Entity in Detail



### Entity details

### Schema

The screenshot shows the 'Entity Specification' dialog box with the 'Schema' tab selected. The 'Name' field is 'Photo'. The 'Domain' is '<Unspecified>'. The 'Full-text index' is 'Photo\_IDX'. The 'Discriminator column' is '<Unspecified>'. The 'Version column' is '<Unspecified>'. The 'Schema' field is 'Col'. The 'Data model' is 'Conceptual'. The 'Tablespace' is '<Unspecified>'. The 'DDL clauses' are '<Unspecified>'. The 'Description' field is empty. The 'Reset', 'OK', 'Cancel', 'Apply', and 'Help' buttons are at the bottom.

- Container that allows for a logical way to group entities.
- Effective in database generation
- Usage notes:
  1. Define the schema lookups
  2. In the Schema field, type the schema name (completion supported)

Entity in Detail

### Entity details

### Data Model

The screenshot shows the 'Entity Specification' dialog box with the 'Data Model' tab selected. The 'Name' field is 'Photo'. The 'Domain' is '<Unspecified>'. The 'Full-text index' is 'Photo\_IDX'. The 'Discriminator column' is '<Unspecified>'. The 'Version column' is '<Unspecified>'. The 'Schema' field is 'Col'. The 'Data model' is 'Physical'. The 'Tablespace' is 'Conceptual'. The 'DDL clauses' are 'Physical'. The 'Description' field is empty. The 'Reset', 'OK', 'Cancel', 'Apply', and 'Help' buttons are at the bottom.

- Different levels of data modeling
  - Conceptual: summary level
  - Logical: fully attributed and normalized
  - Physical: ready for database construction

Entity in Detail

## Entity details

## Tablespace

The screenshot shows the 'Entity Specification' dialog box. The 'Tablespace' field is highlighted with a red box and contains the value 'photo\_ts'. Other fields include Name: Photo, Domain: <Unspecified>, Full-text index: (empty), Discriminator column: <Unspecified>, Version column: <Unspecified>, Schema: (empty), Data model: Physical, and DDL clauses: (empty). The Description field is also empty.

- Available for **Oracle** database only
- A storage location where the actual data underlying database objects are kept in Oracle DB.
- Effective in database generation
- Usage notes:
  1. Define the tablespace lookups
  2. In the Tablespace field, type the tablespace name (completion supported)

Entity in Detail

## Entity details

## DDL Clause

The screenshot shows the 'Entity Specification' dialog box. The 'DDL clauses' field is highlighted with a red box and contains the text 'ON COMMIT DELETE ROWS'. Other fields are the same as in the previous screenshot.

- DDL (Data Definition Language) is a syntax for defining data structure
  - E.g.
    - **CREATE** TABLE PHOTO (...);
    - **DROP** TABLE PHOTO;
    - **ALTER** TABLE PHOTO ADD (...);
- DDL clause is the text to append to the end of create table statement in database generation

Entity in Detail

## Entity details

## Description

Entity Specification

Tabbed Values | Traceability | References | Project Management | Quality | Comments  
General | Columns | Indices | Constraints | Relations | Chart Relations | Stereotypes

Name: Photo

Domain: <Unspecified>

Full-text index: ... Remove

Discriminator column: <Unspecified>

Version column: <Unspecified>

Schema: ...

Data model: Physical

Tablespace: ...

DDL clauses:

Description:

A photo is an image taken by a camera and uploaded to the online photo album.

Reset OK Cancel Apply Help

- Describe the table in detail
- Useful in:
  - Creating data dictionary
  - Documenting database table (as comment of table)

Entity in Detail

## Summary

- How to open entity specification
- Various properties of an entity

Entity in Detail