

Creating Data Relationships

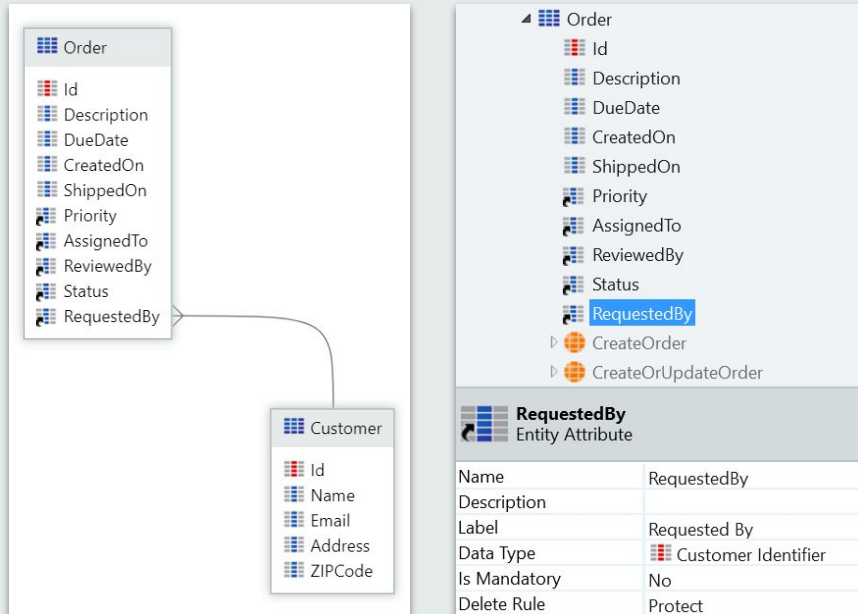


1-to-Many Relationship

1-to-1 Relationship

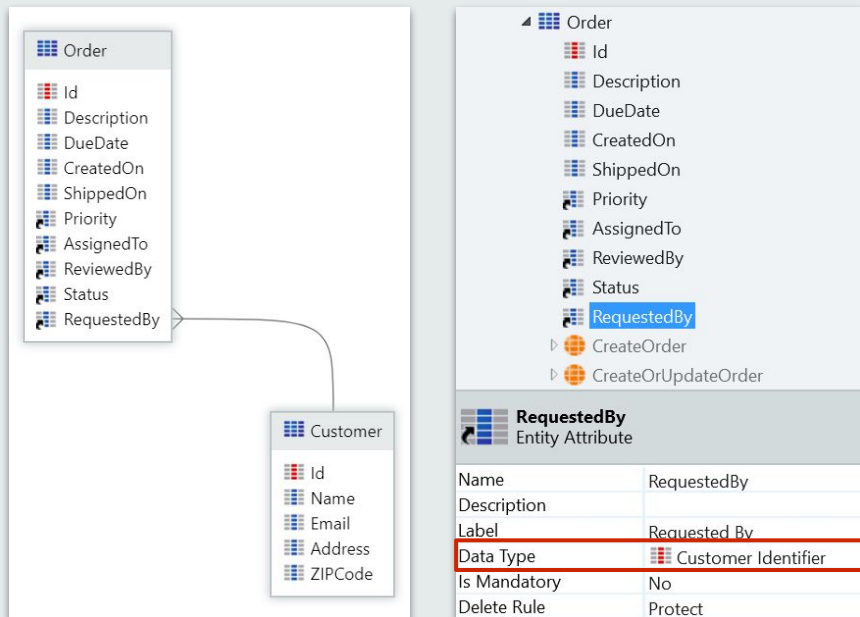
Many-to-Many Relationship

1-to-many Relationship



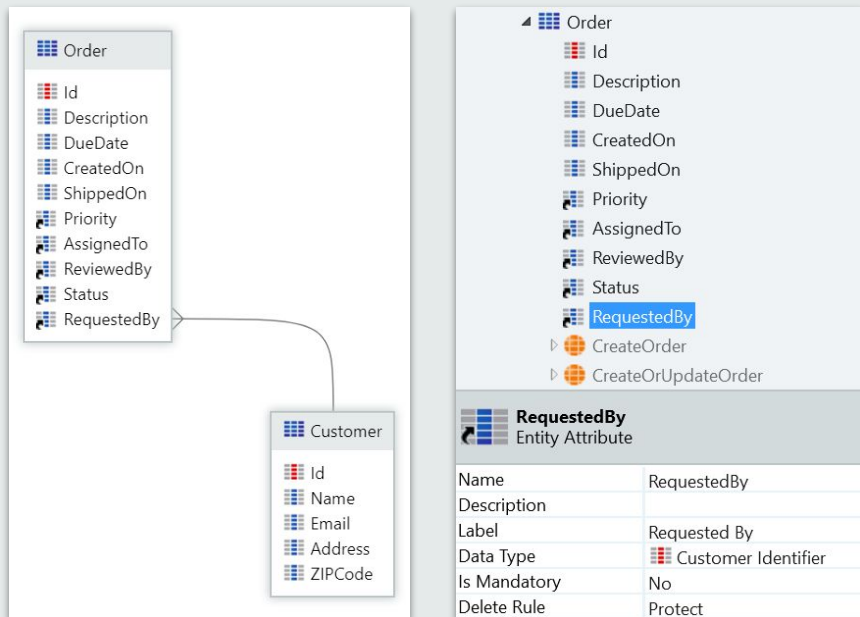
- 1-to-many
 - Each Customer may have **many** Orders
 - An Order was requested by **one** Customer

1-to-many Relationship



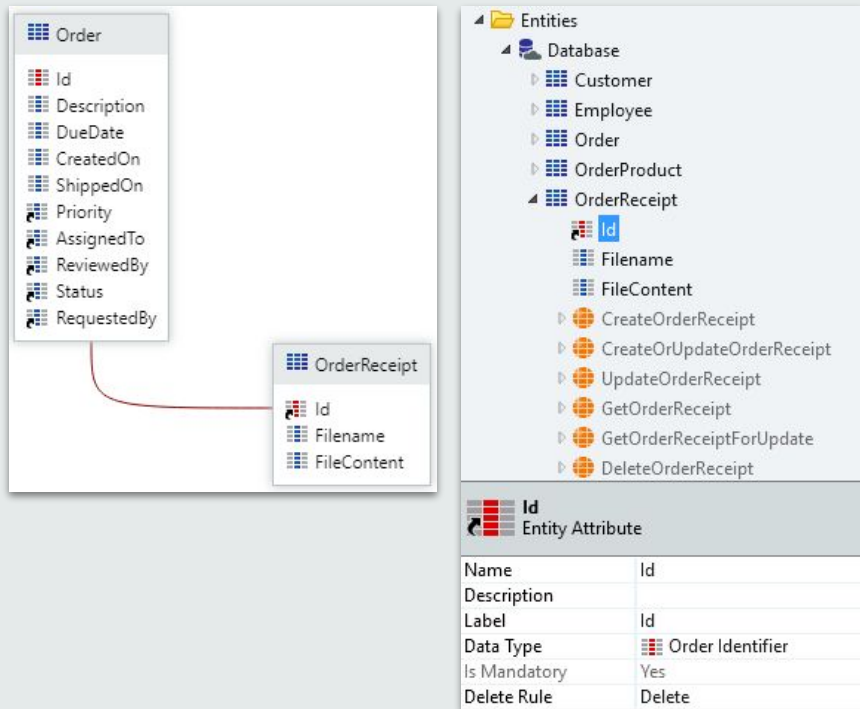
- 1-to-many
 - Each Customer may have **many** Orders
 - An Order was requested by **one** Customer
- Customer submits multiple Orders
 - Order Entity has a reference attribute of type *Customer Identifier (RequestedBy)*
 - Reference attribute may or may not be mandatory

Master-Detail Entities



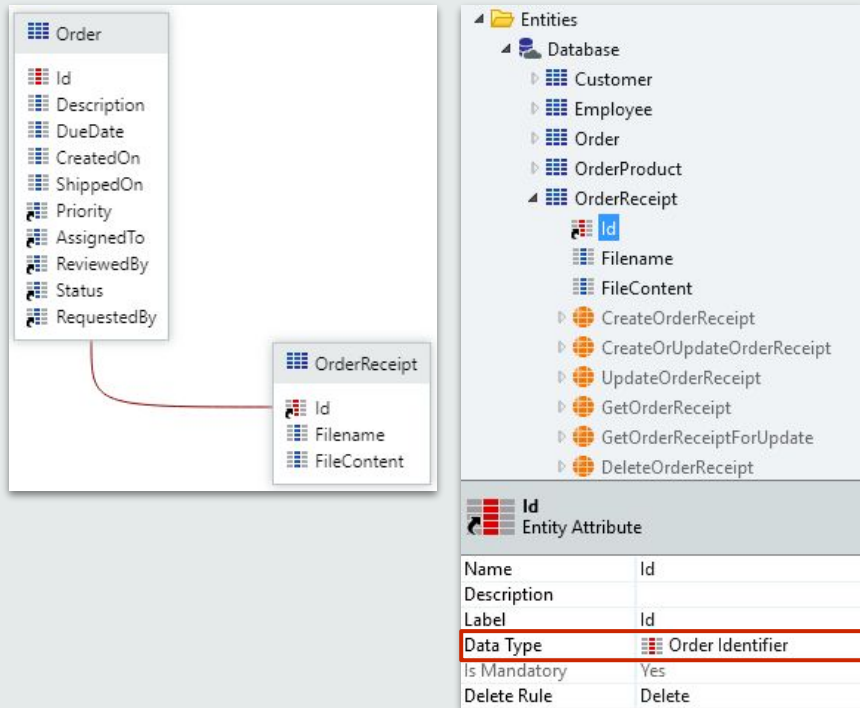
- Detail Entity references the Master Entity
- Detail Entity has a reference attribute of type *MasterEntity Identifier*
- An Entity can have multiple reference attributes
 - Order Entity has five reference attributes

1-to-1 Relationship



- 1-to-1
 - Each Receipt belongs to **one** Order
 - Each Order has at **most one** Receipt

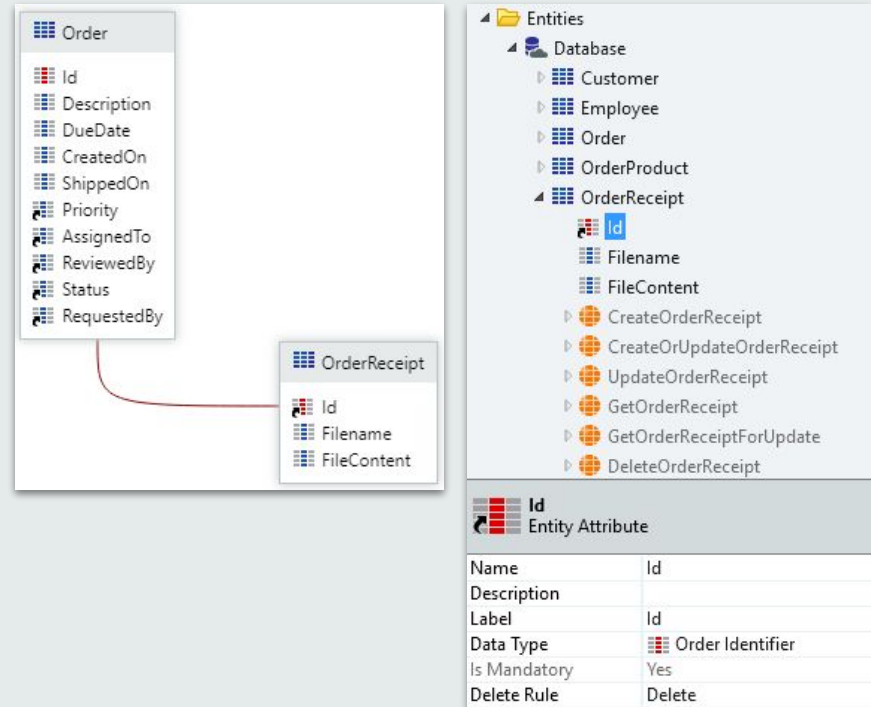
1-to-1 Relationship



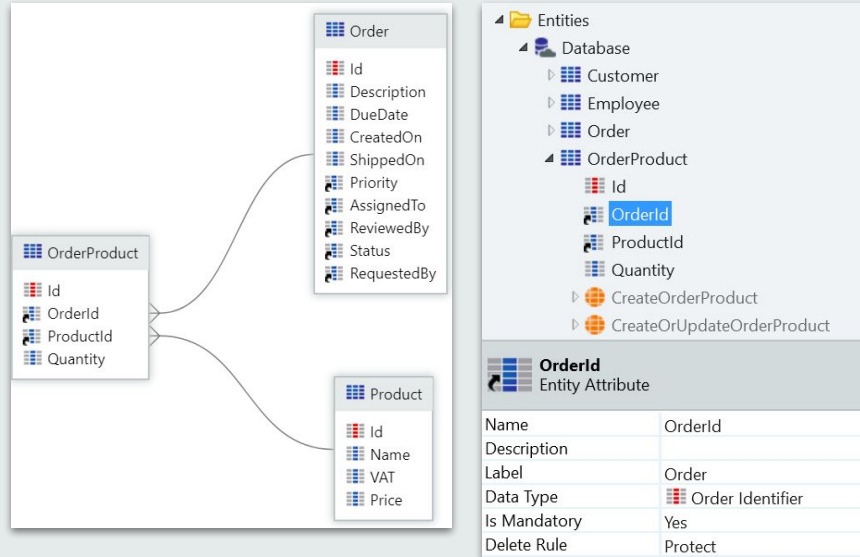
- OrderReceipt is an **extension** of Order
 - OrderReceipt has an identifier of type **Order Identifier**
 - Is Mandatory is set to *Yes*
 - OrderReceipt Identifier must be explicitly assigned with the *Order* identifier when creating the record

Extension Entity

- Shares its identifier with the base Entity
- The two Entities could be merged
- Usually split apart due to:
 - Performance issues
 - Base Entity is read only

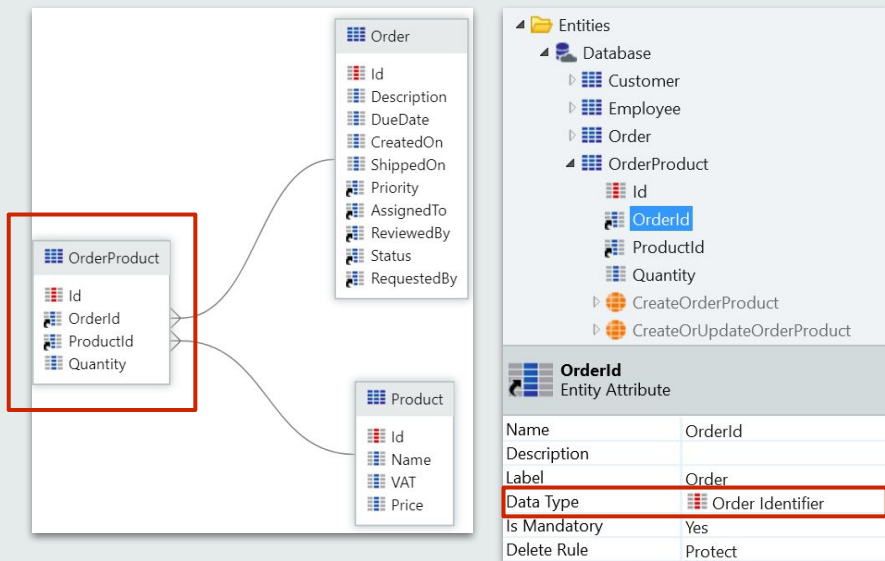


Many-to-many Relationship



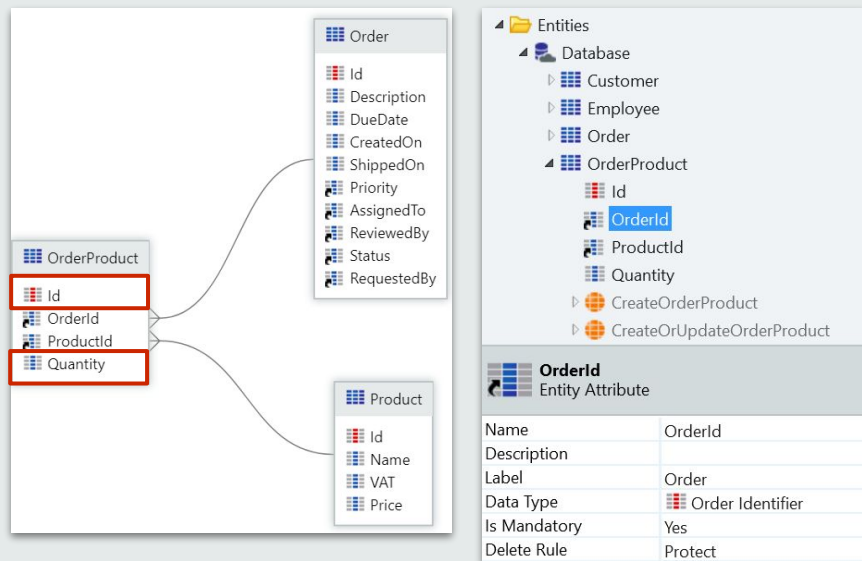
- Many-to-many
 - Each Product may be part of **many** Orders
 - Each Order may have **many** Products

Many-to-many Relationship



- An OrderProduct **Junction Entity** is required
 - Reference attribute *OrderId* of type *Order Identifier*
 - Reference attribute *ProductId* of type *Product Identifier*

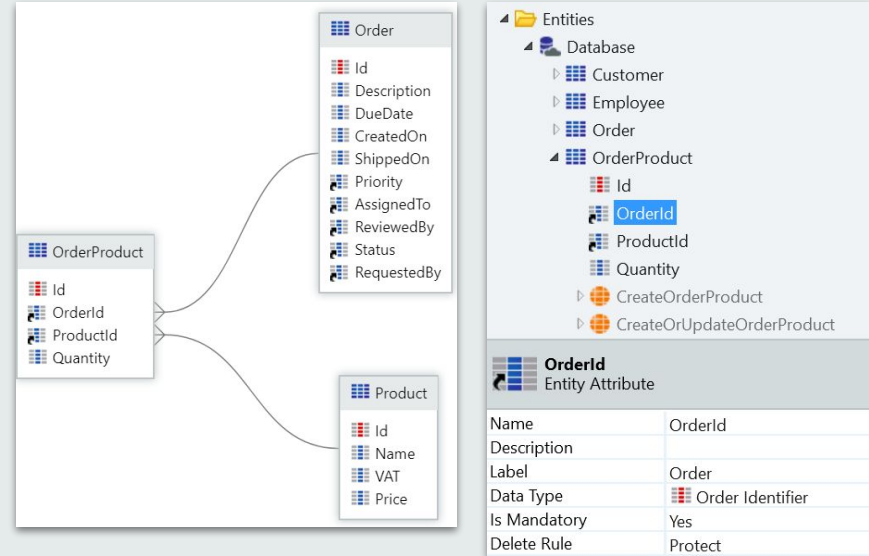
Many-to-many Relationship



- Junction Entity has its own Id attribute
 - Long Integer and auto-number by default
- Entity can have other attributes if needed

Junction Entity

- New Entity with its own unique **Id**
- One reference attribute per each Entity of the relationship
 - *MasterEntity1 Identifier*
 - *MasterEntity2 Identifier*
- Unique Index with both reference attributes may be useful



Questions?

Thank you
