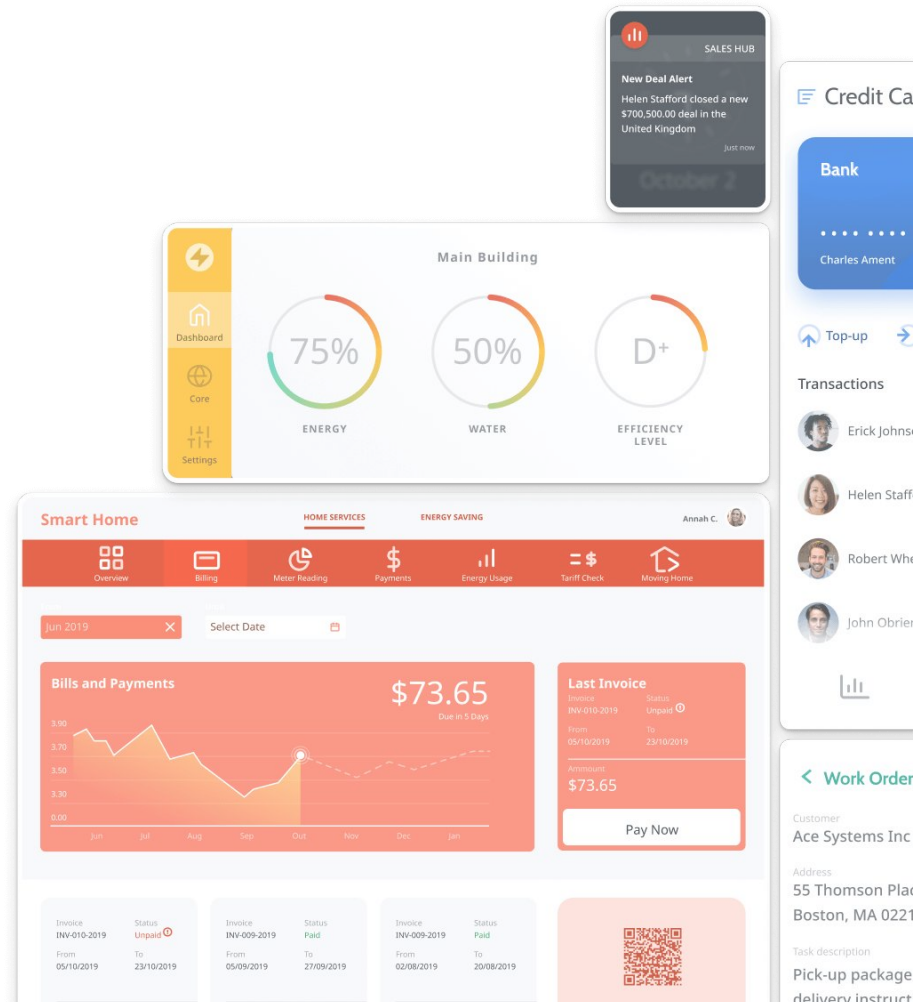


Creating Data Relationships

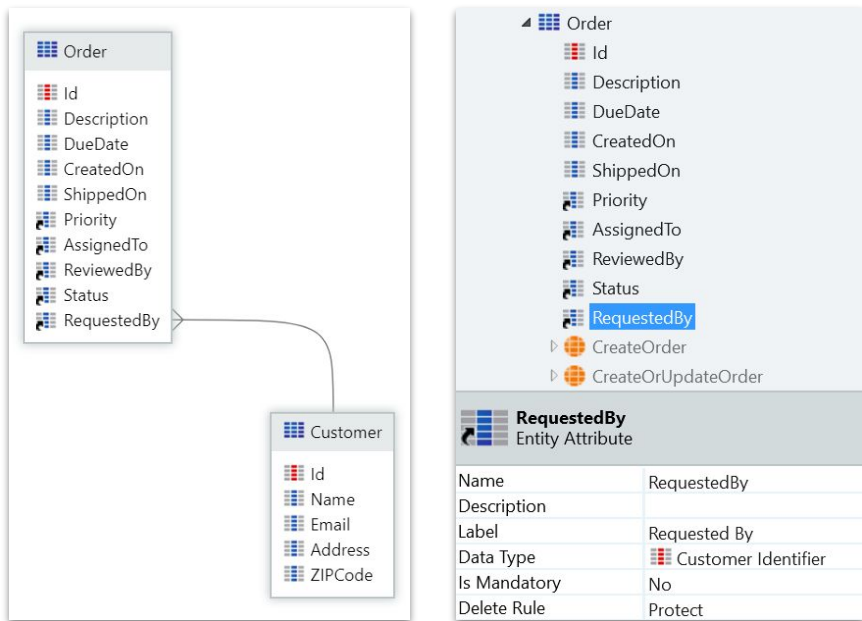
Reactive Developer Boot Camp



What you will learn here

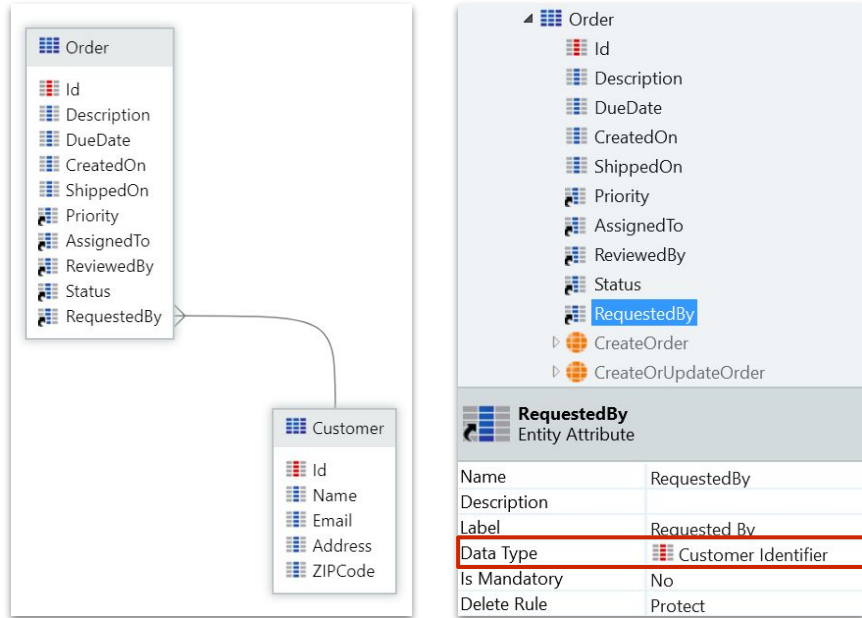
- 1-to-Many Relationship
- 1-to-1 Relationship
- Many-to-Many Relationship

1-to-many Relationship



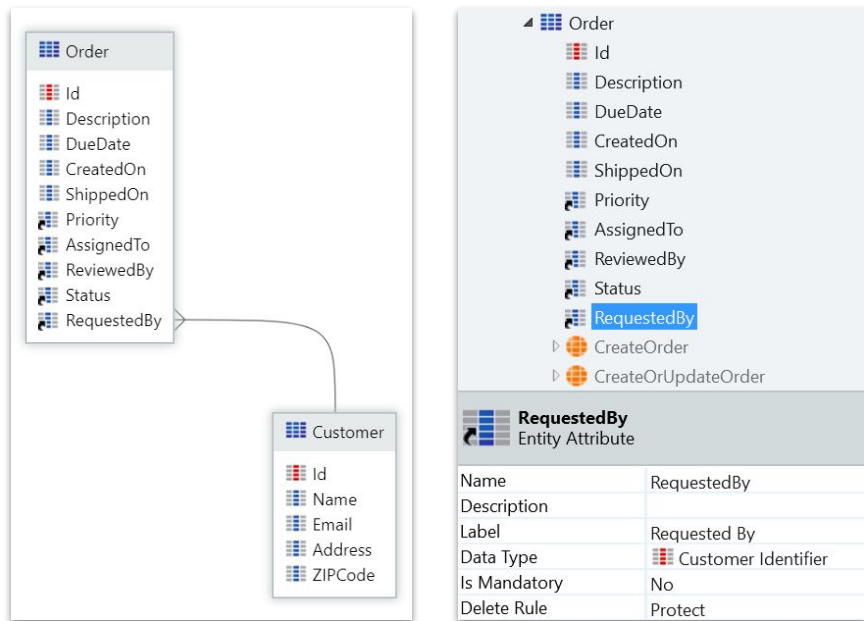
- 1-to-many
 - Each Customer may have **many** Orders
 - An Order was requested by **one** Customer

1-to-many Relationship



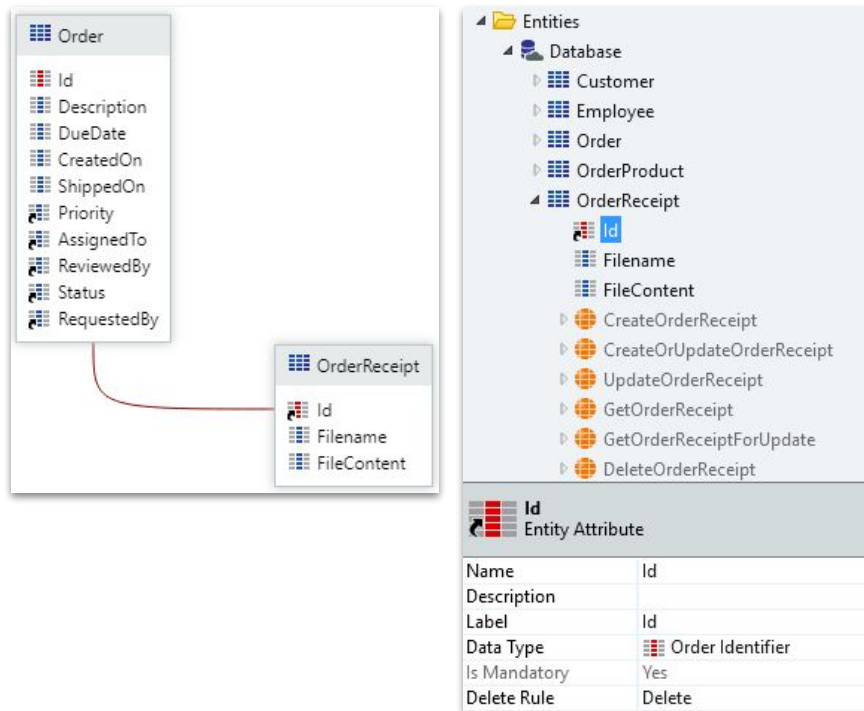
- 1-to-many
 - Each Customer may have **many** Orders
 - An Order was requested by **one** Customer
- Customer submits multiple Orders
 - Order Entity has a reference attribute of type *Customer Identifier (RequestedBy)*
 - Reference attribute may or may not be mandatory

Master-Detail Entities



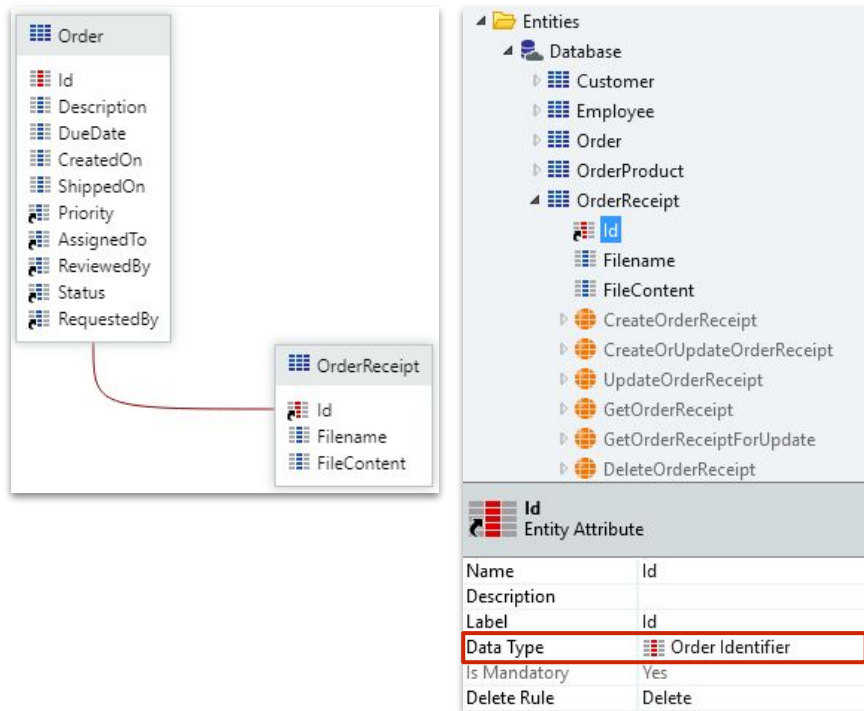
- Detail Entity references the Master Entity
- Detail Entity has a reference attribute of type *MasterEntity* Identifier
- An Entity can have multiple reference attributes
 - Order Entity has five reference attributes

1-to-1 Relationship



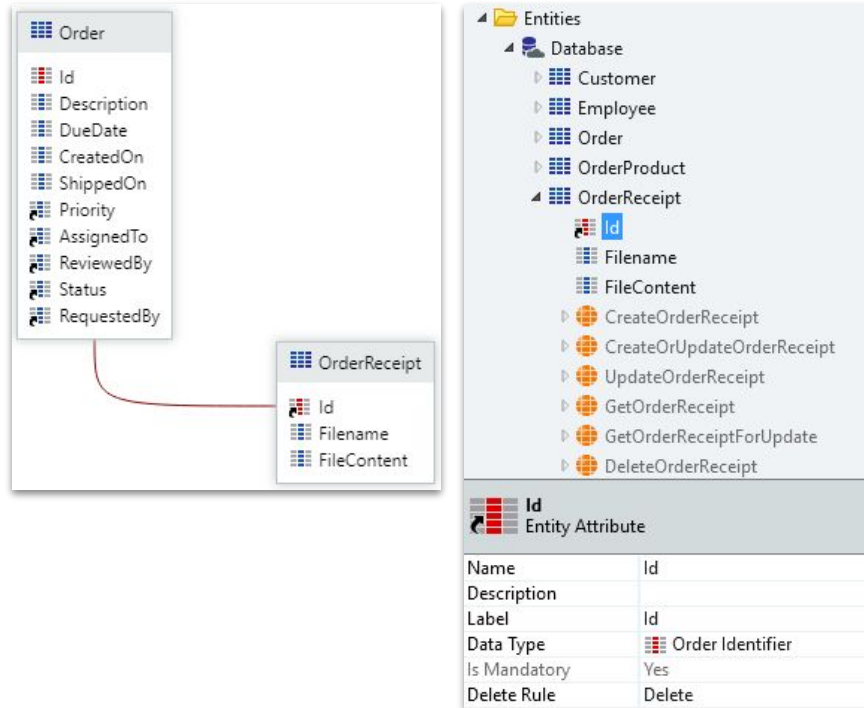
- 1-to-1
 - Each Receipt belongs to one Order
 - Each Order has at most one Receipt

1-to-1 Relationship



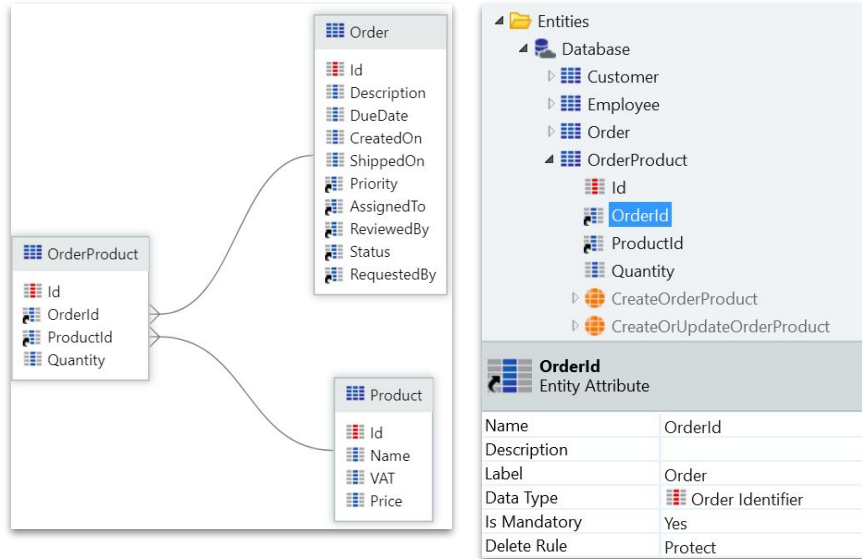
- 1-to-1
 - Each Receipt belongs to **one** Order
 - Each Order has at **most one** Receipt
- OrderReceipt is an **extension** of Order
 - OrderReceipt has an identifier of type **Order Identifier**
 - IsMandatory is set to Yes
 - OrderReceipt Identifier must be explicitly assigned with the *Order* identifier, when creating the record

Extension Entity



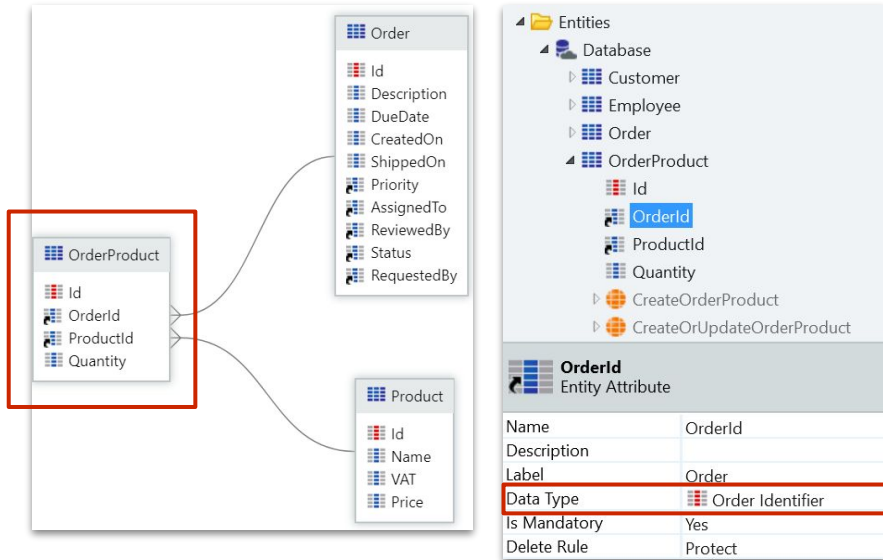
- Shares its identifier with the base Entity
- The two Entities could be merged
- Usually split apart due to:
 - Performance issues
 - Base Entity is read only

Many-to-many Relationship



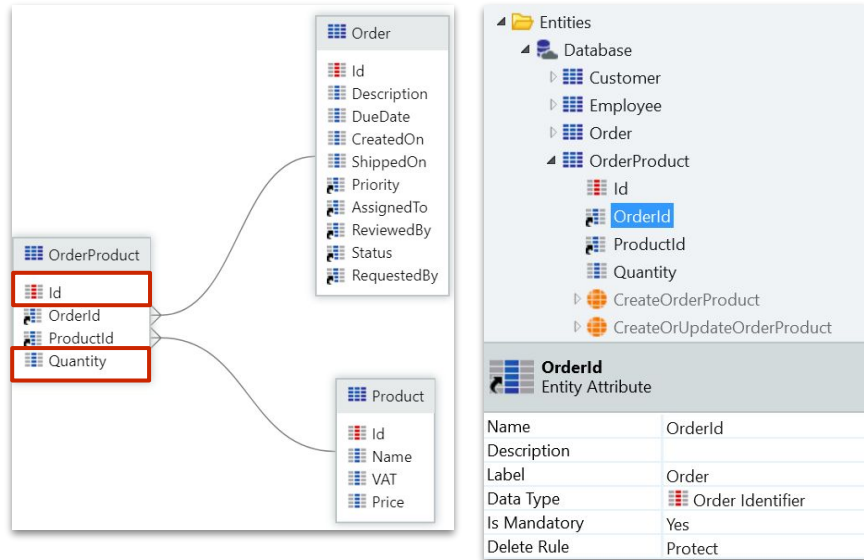
- Many-to-many
 - Each Product may be part of **many** Orders
 - Each Order may have **many** Products

Many-to-many Relationship

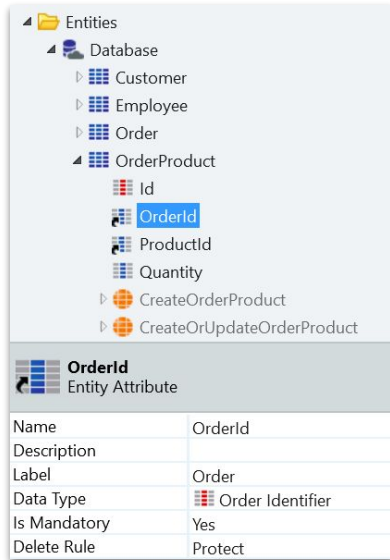


- Many-to-many
 - Each Product may be part of many Orders
 - Each Order may have many Products
- An OrderProduct **Junction Entity** is required
 - Reference attribute OrderId of type *Order Identifier*
 - Reference attribute ProductId of type *Product Identifier*

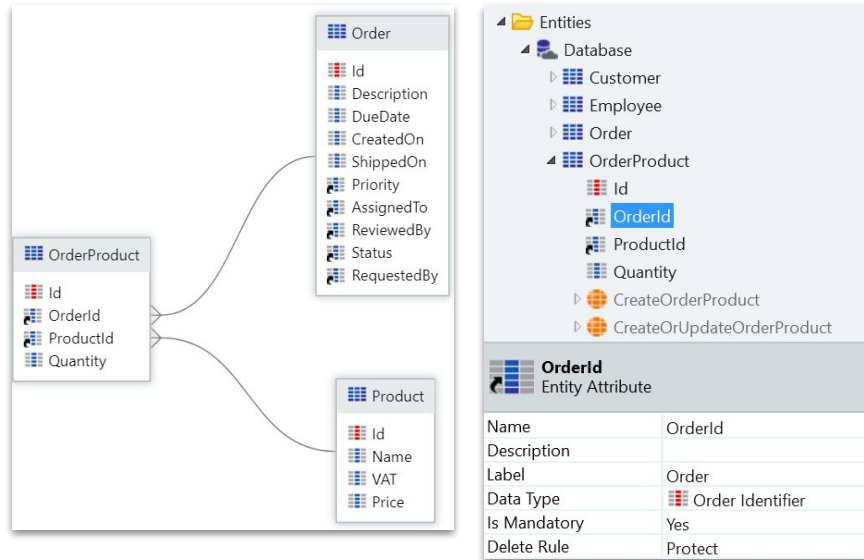
Junction Entity



- Junction Entity has its own unique **Id** attribute
- Entity can have other attributes if needed



Junction Entity



- Junction Entity has its own unique **Id** attribute
- Entity can have other attributes if needed
- 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!

