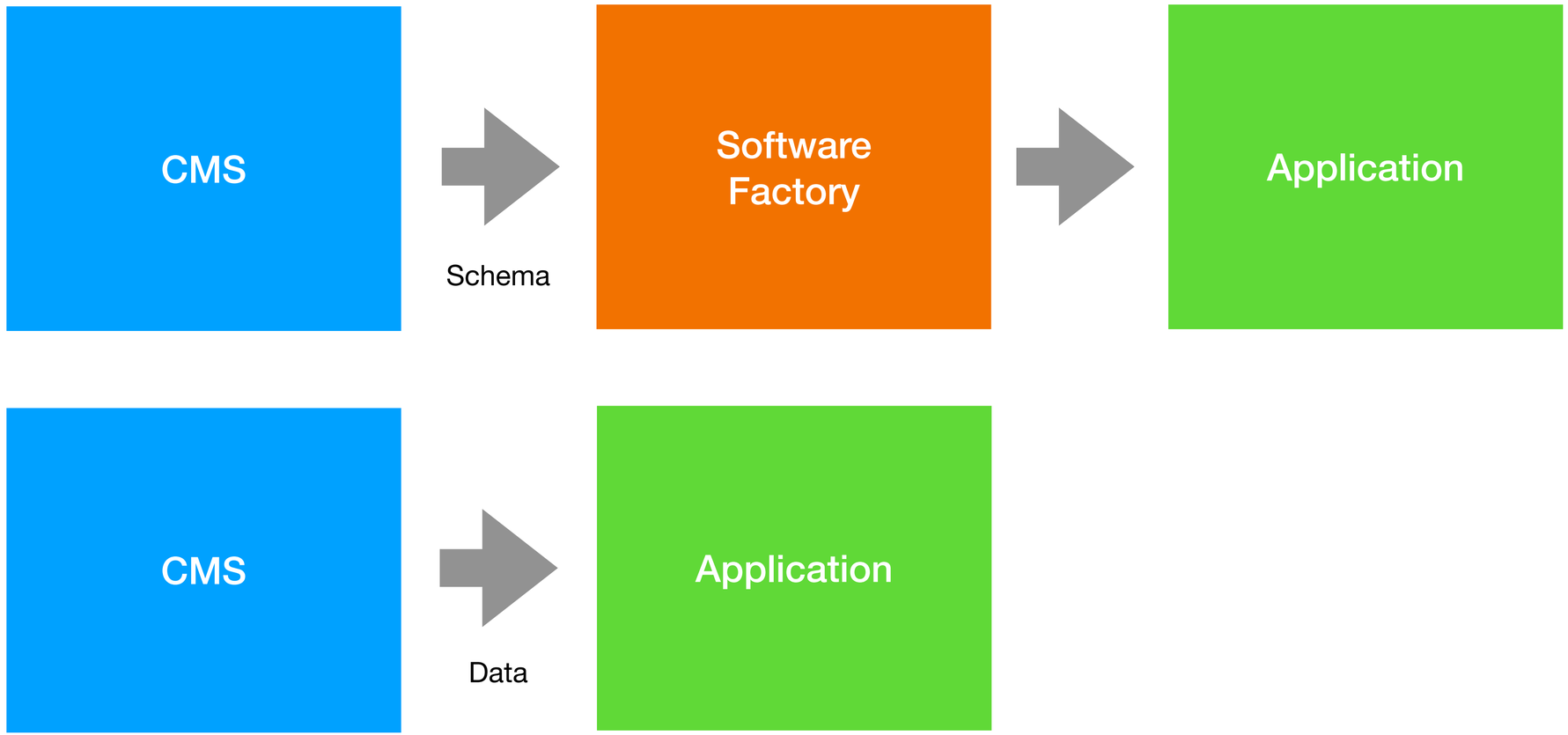
CMS driven Software Factories

Generating application infrastructure with customisations

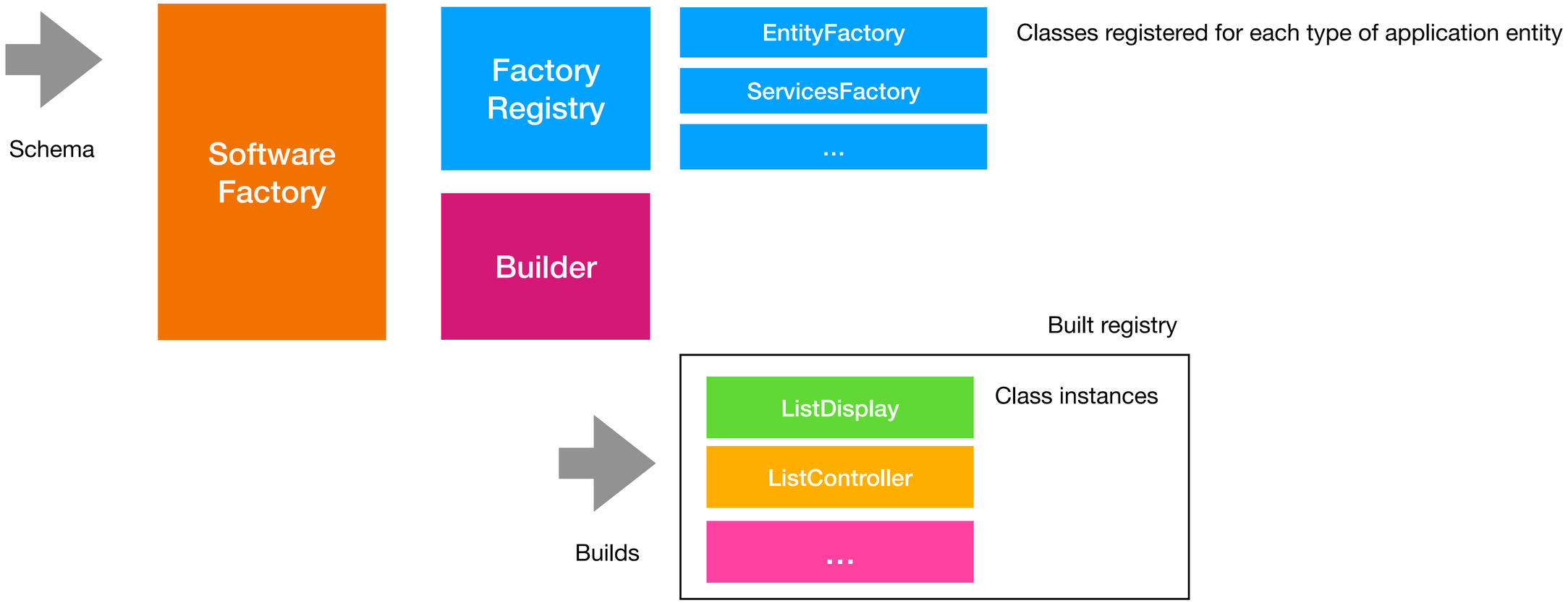
Kristian Mandrup

Runtime Application generation and Assembly

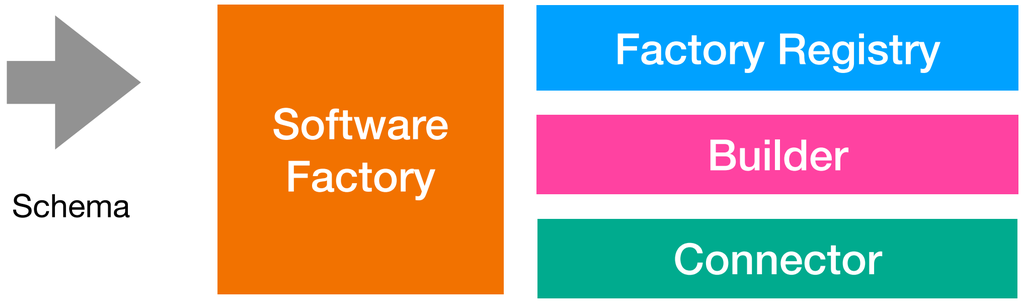


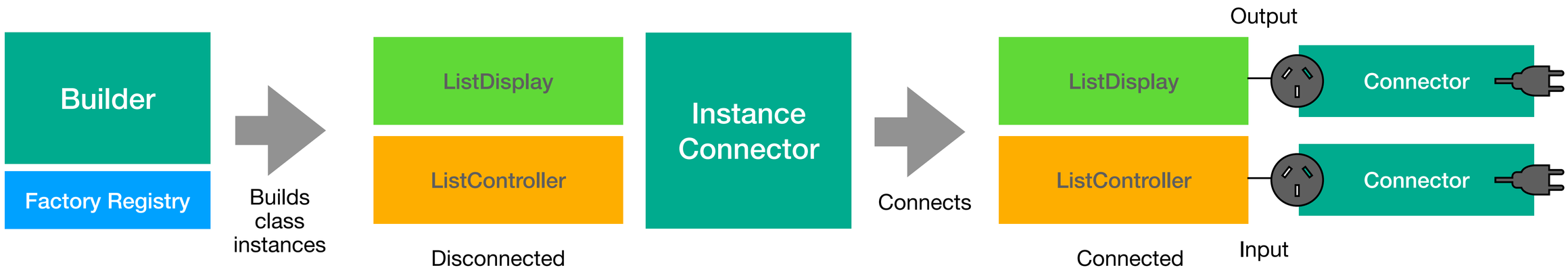
Application Factory

Application Factory

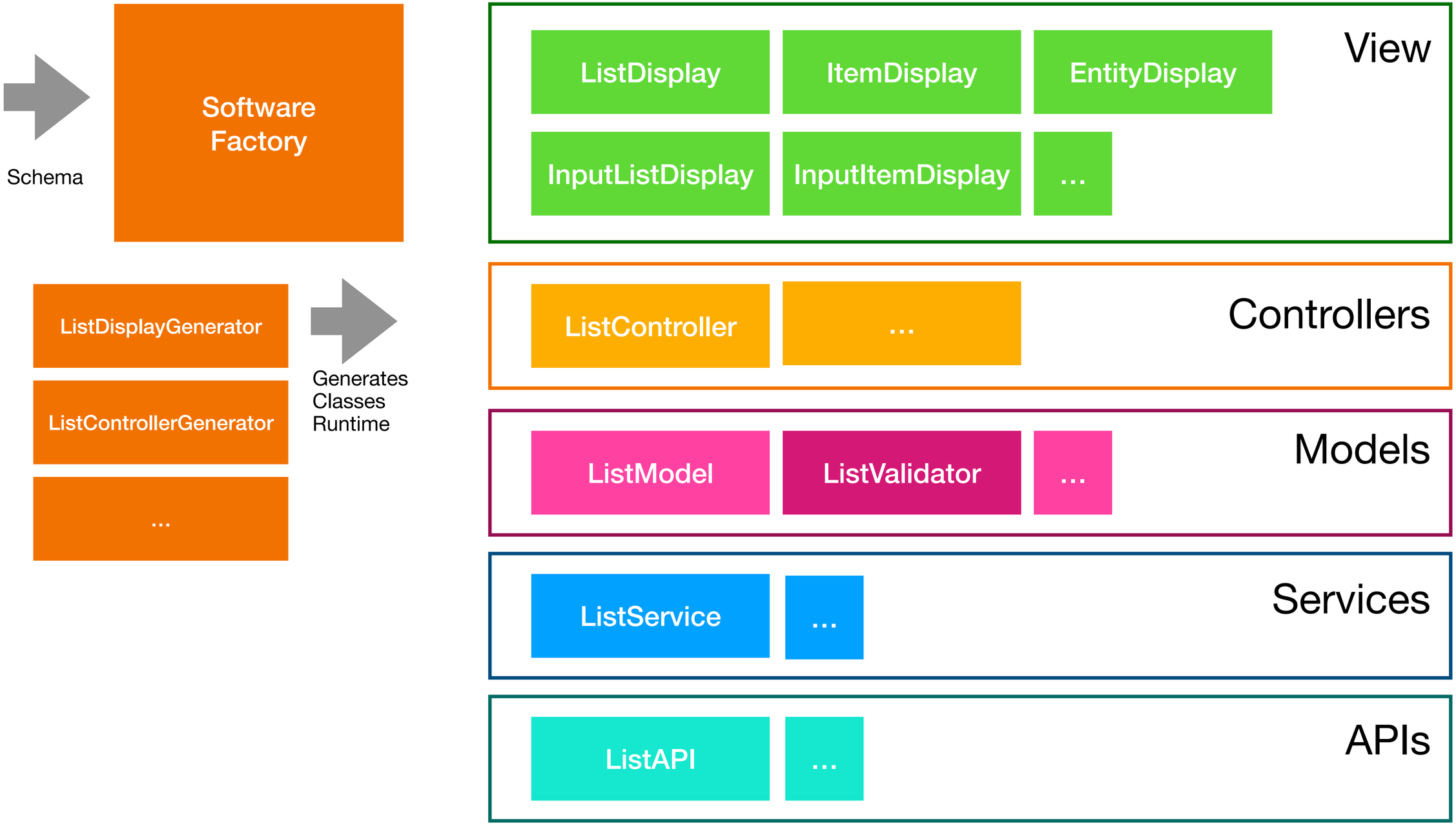


Application Factory



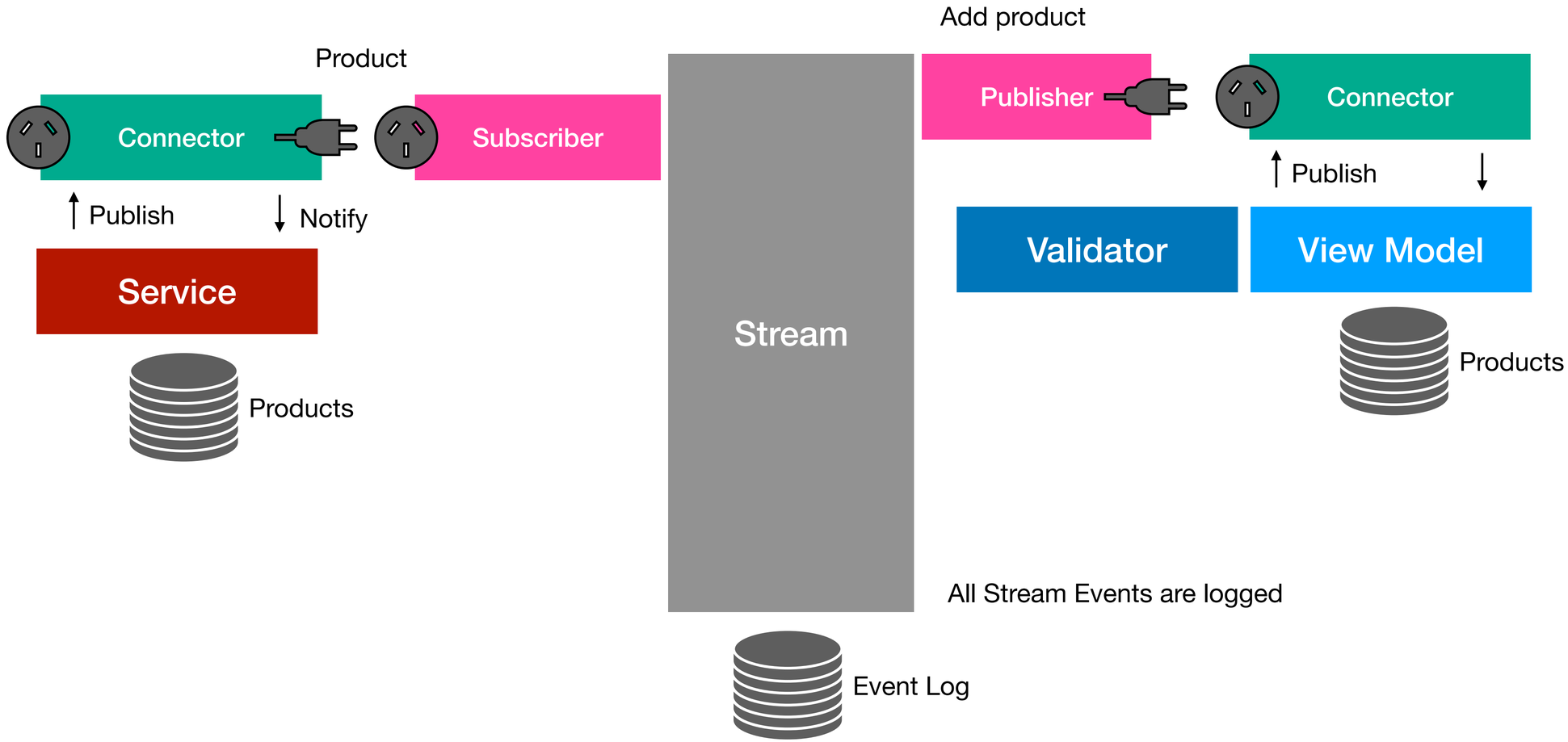


Entity Application outputs



Application Data Flow

Subscribing and Connecting to Stream Data

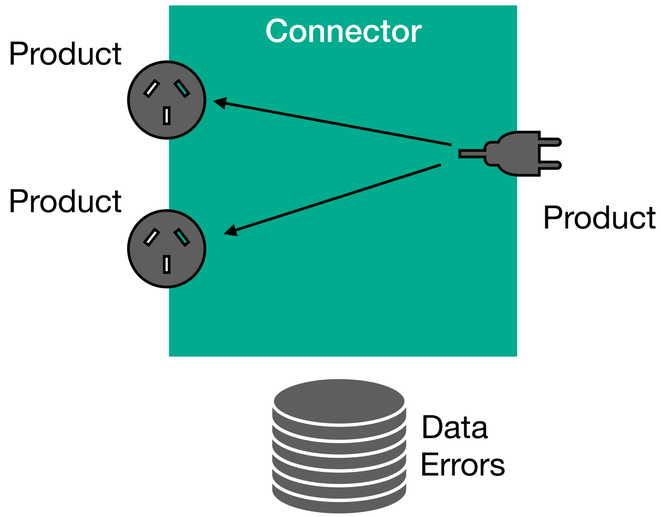


Connector in Detail

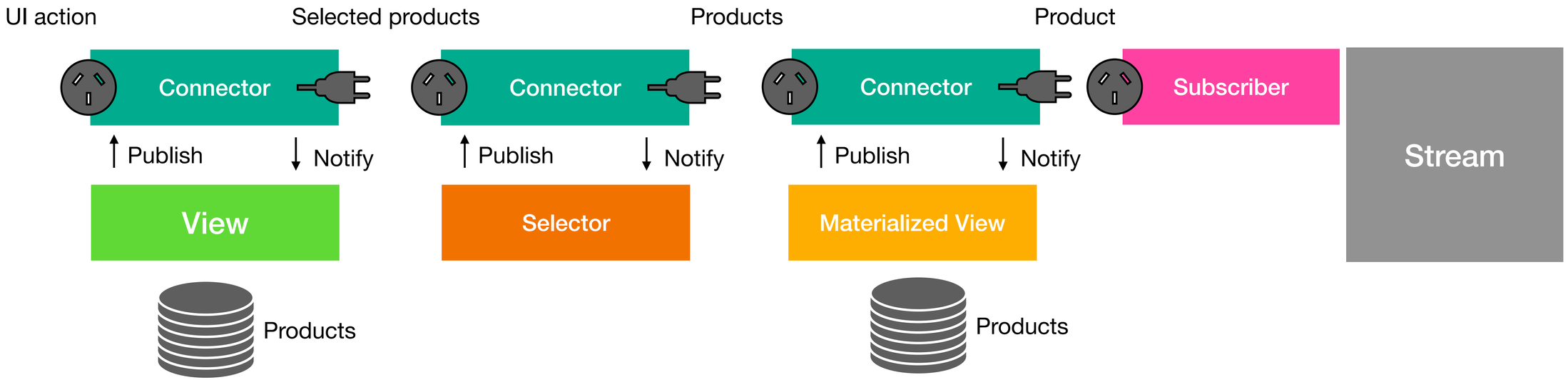
Product

Product:data

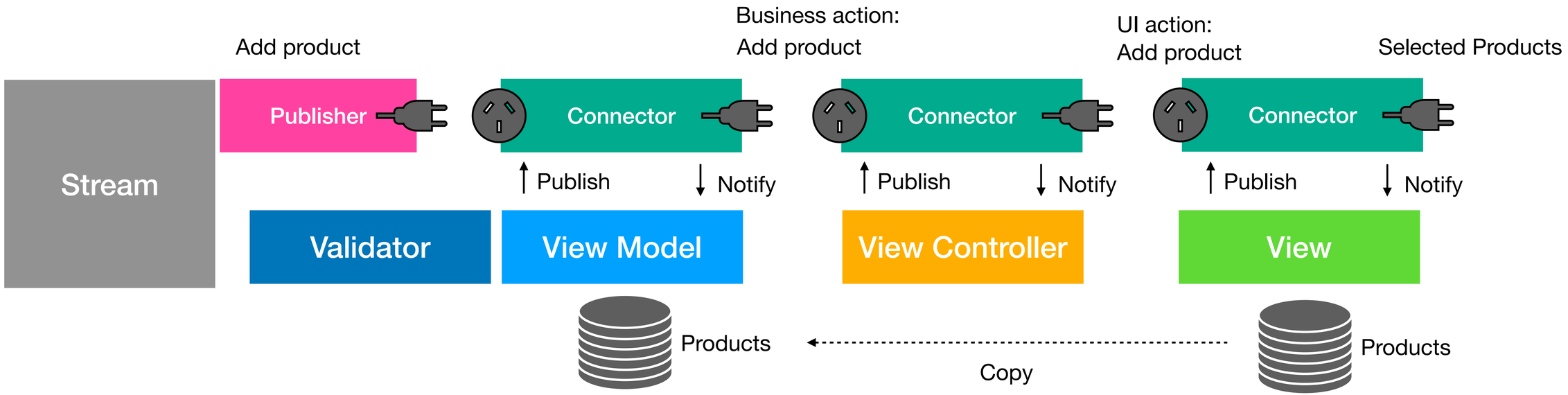
Product:errors



View subscribing to Materialized View



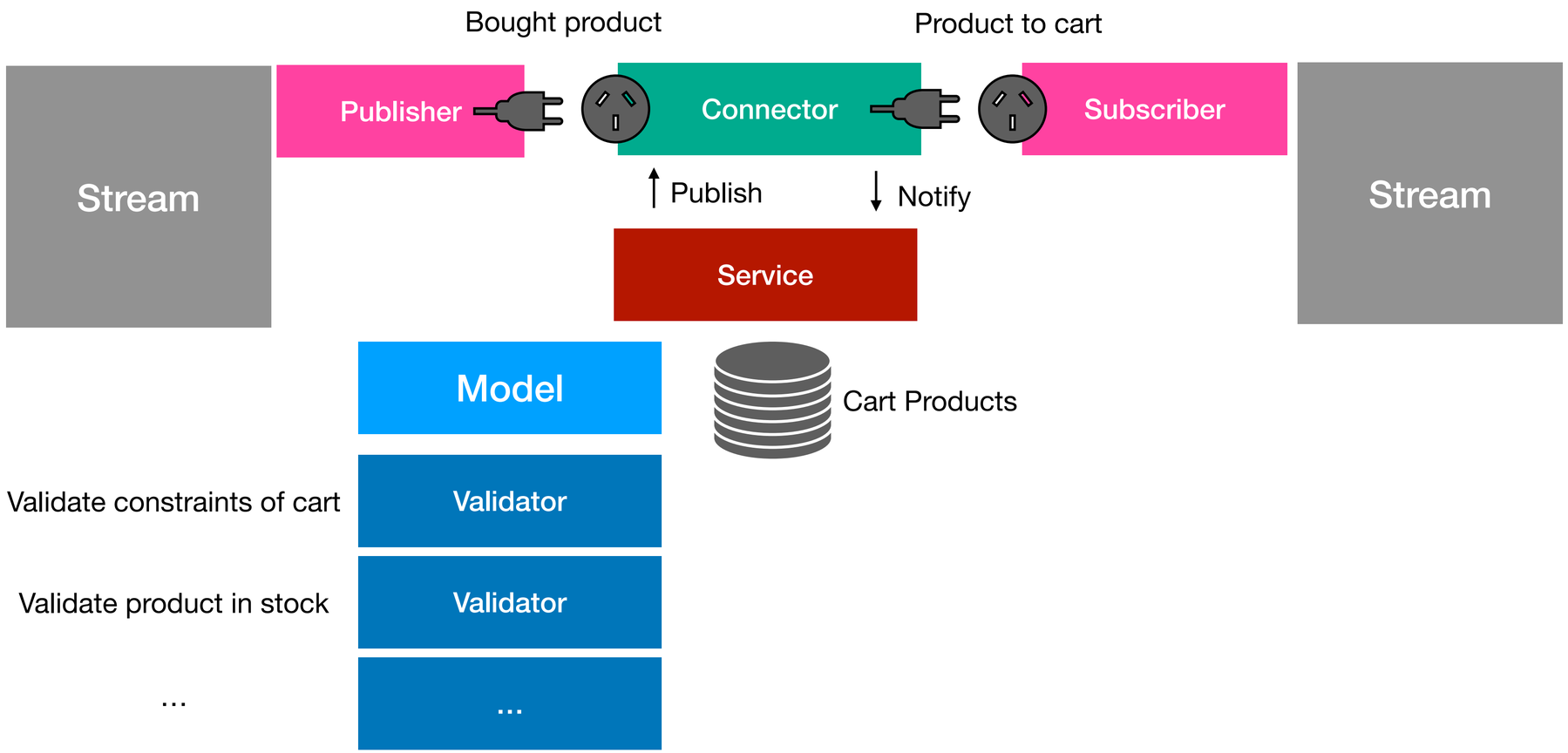
Model-View-Controller data flow



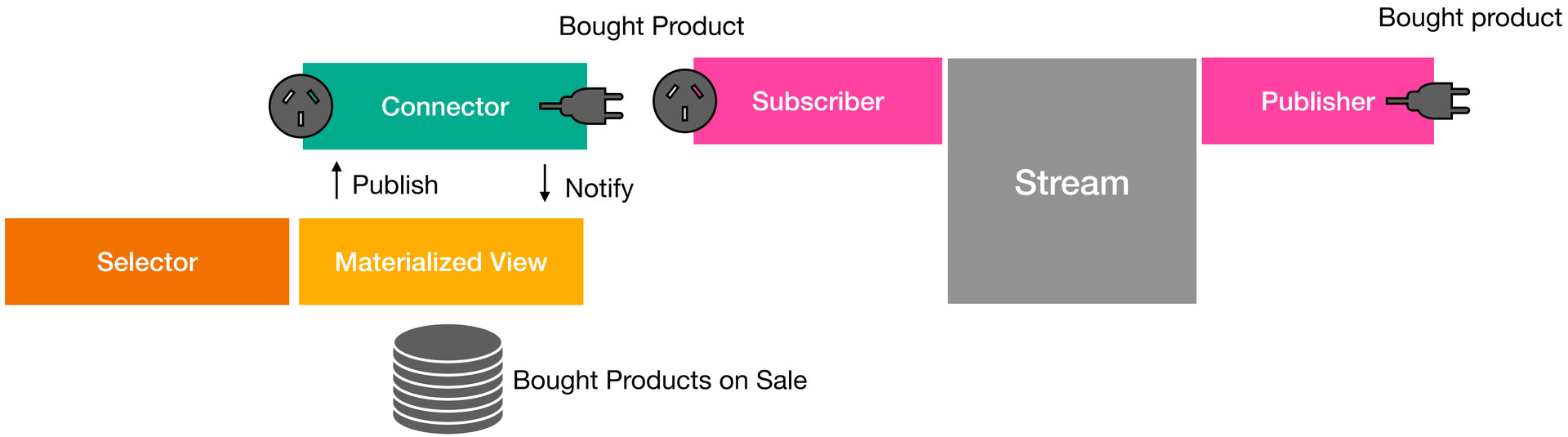
Validate that action can be performed on View Model

Service subscribing to Stream

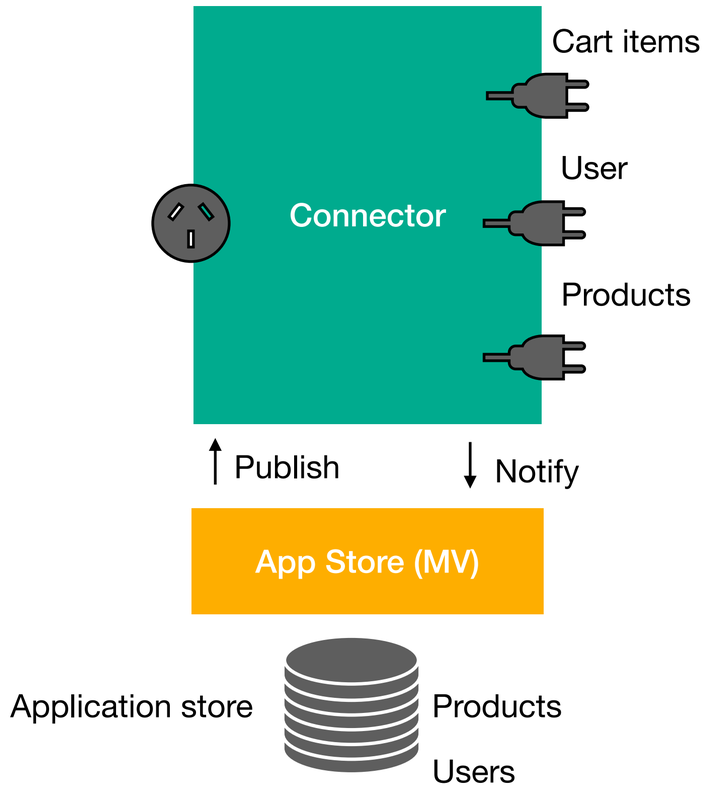
publishes new event - result of service



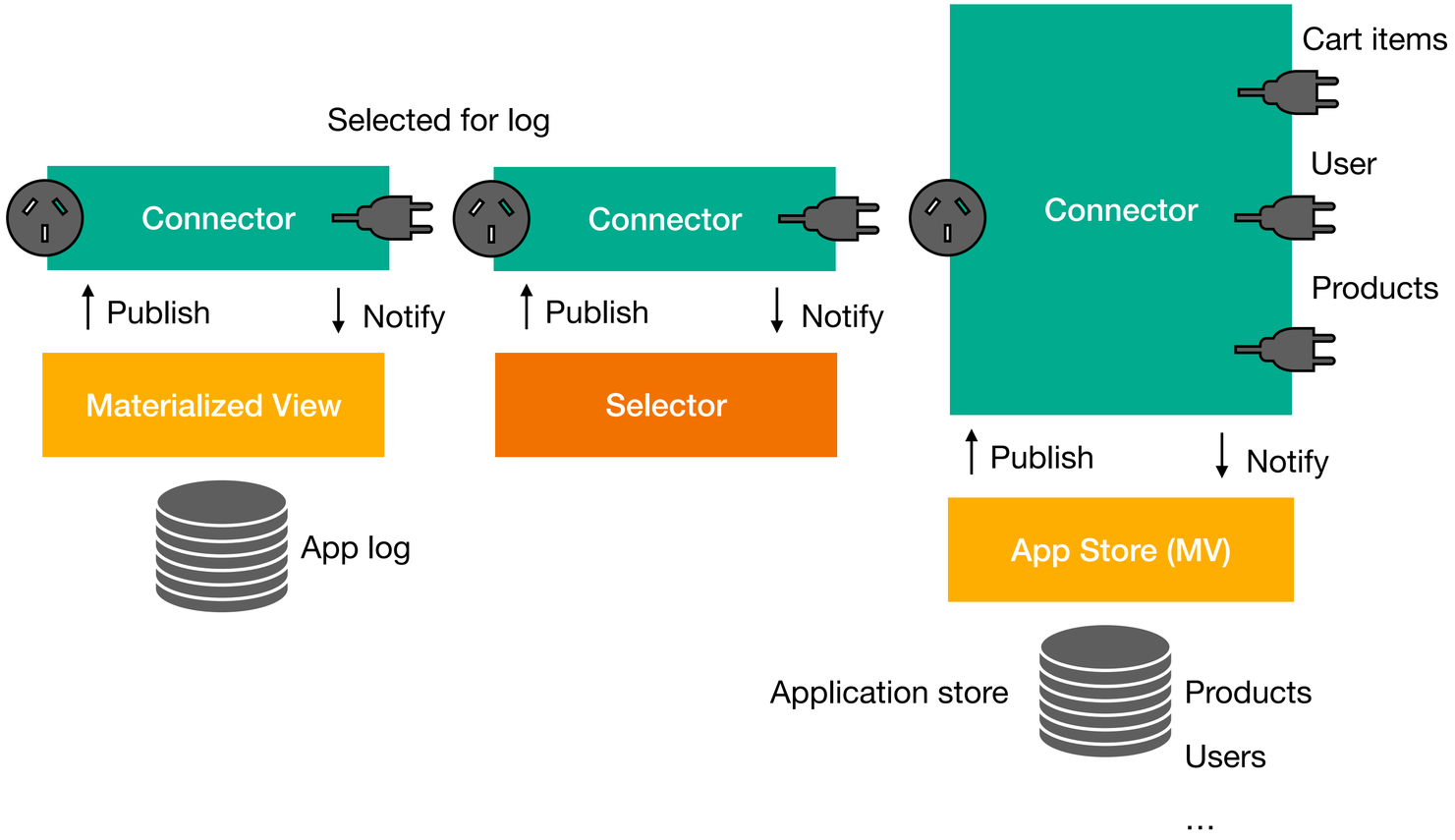
Materialized View subscribing to Stream



App Store as a Materialized View

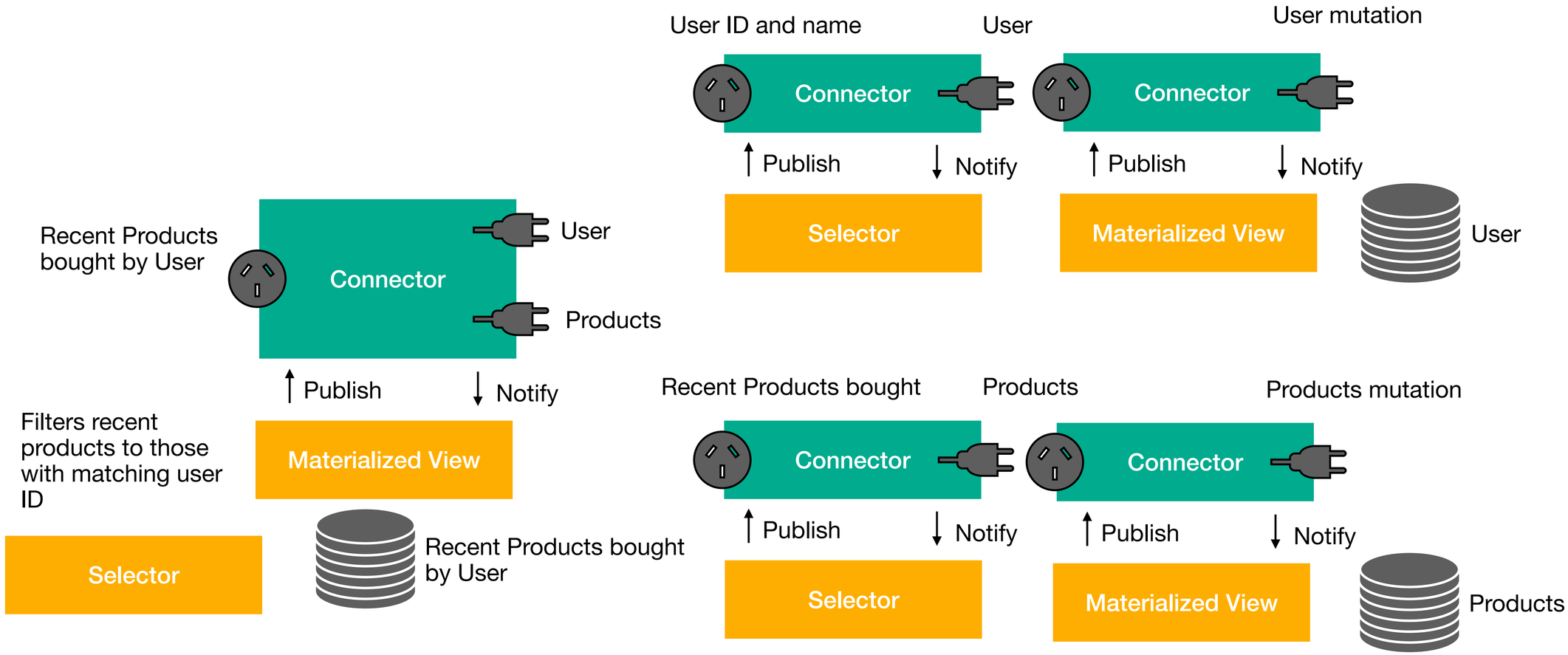


Application store and Application log



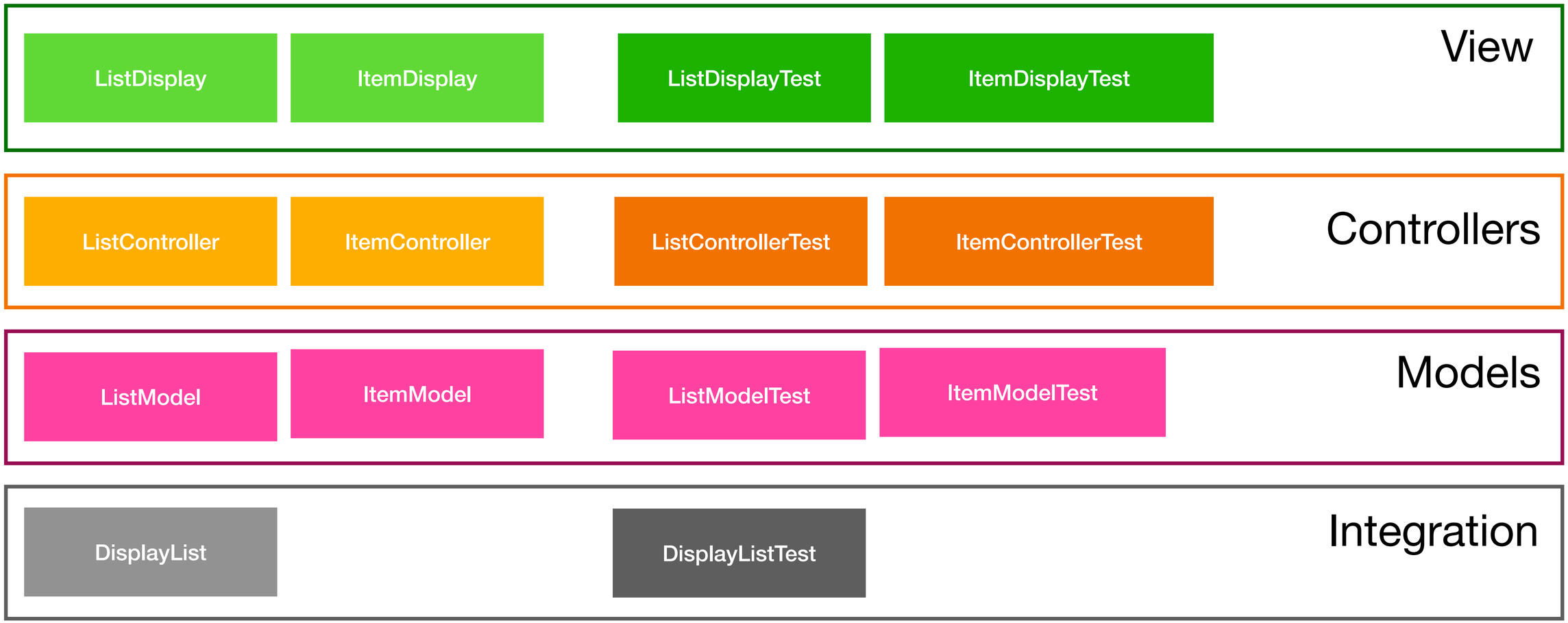
A View should NEVER select directly from Application store
A View should always select from a Materialized View with data specific for that view

Aggregate Material Views

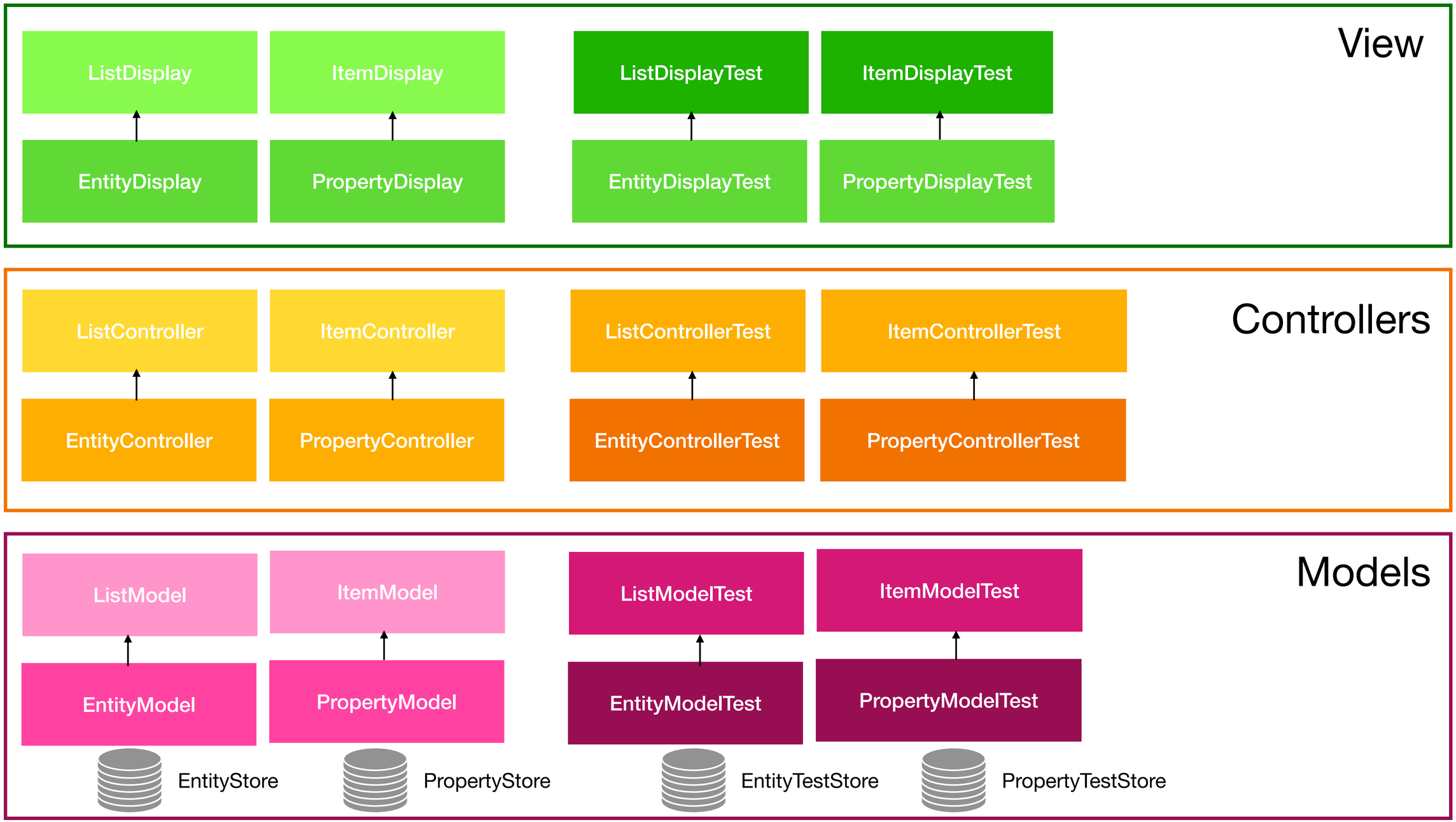


Classes generated

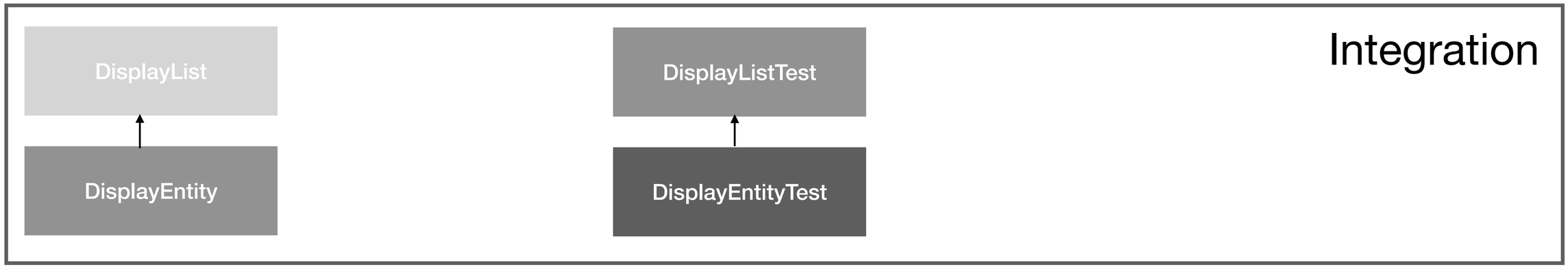
Entity Display Generators



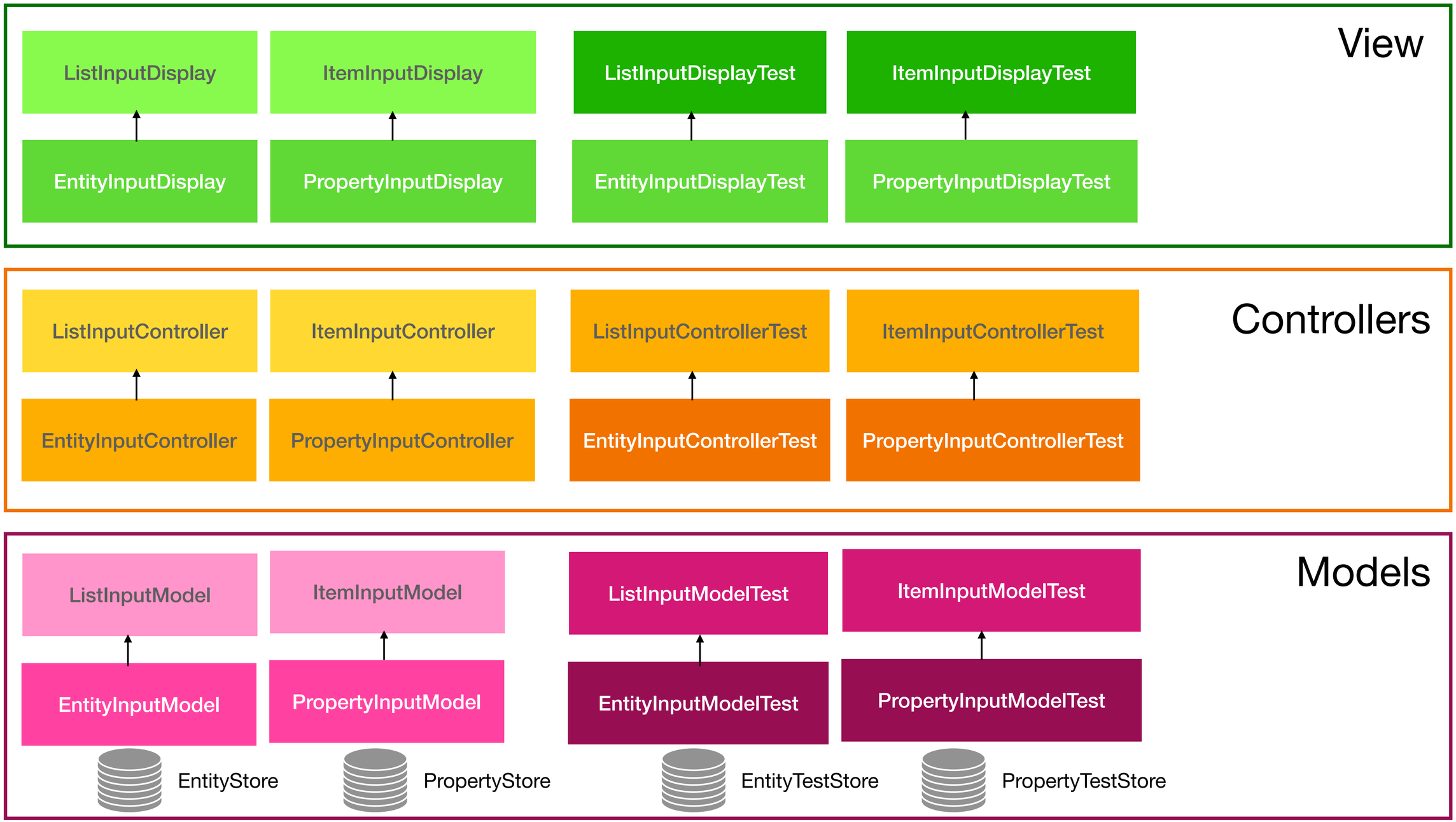
Entity Display Generators



Entity Display Generators

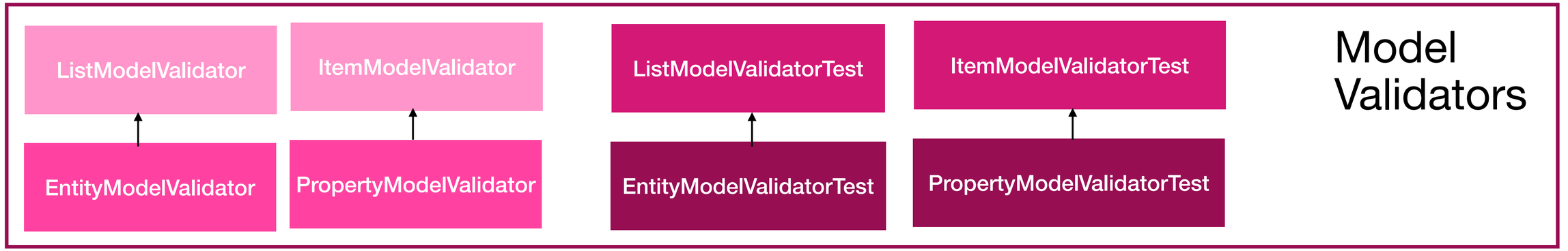


Entity Input Display Generators

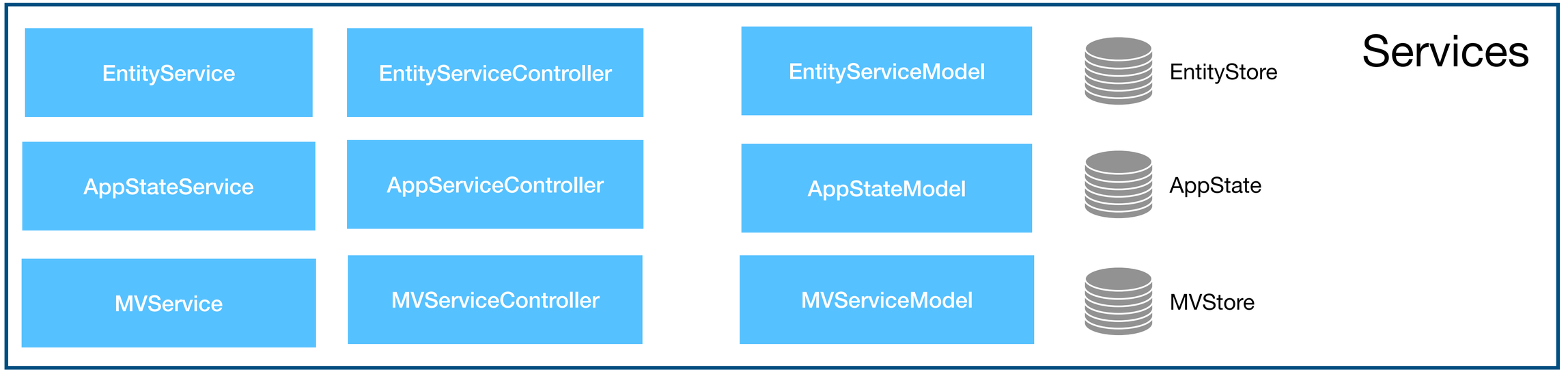


Entity Input Display Generators

Model Validators

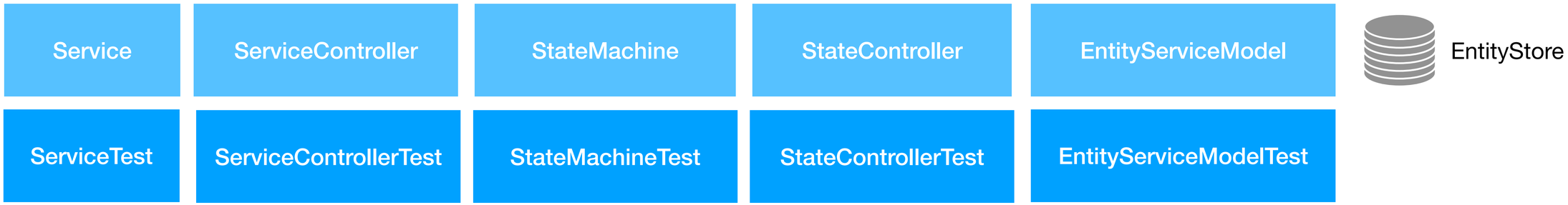


Services

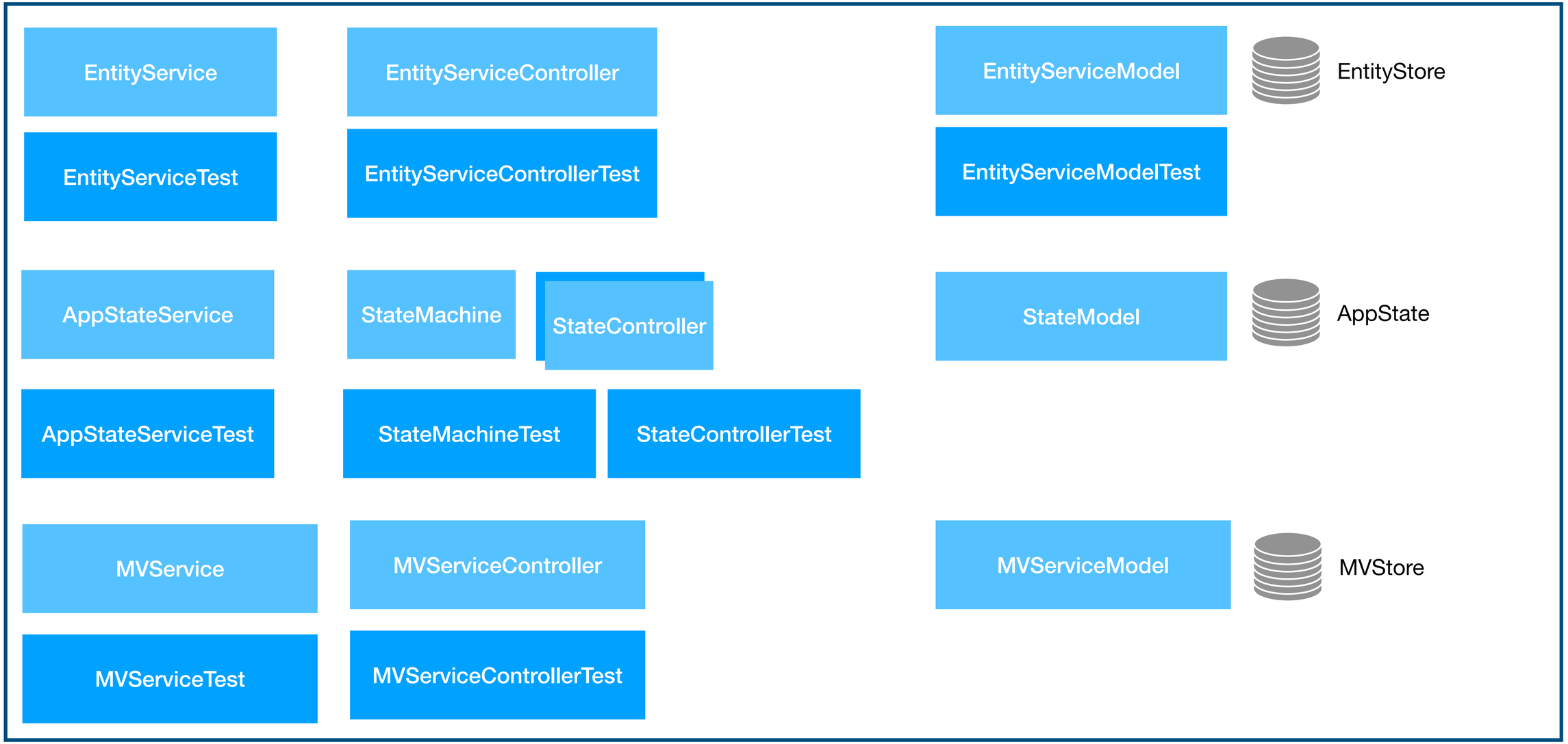


MV - Materialized View

Services

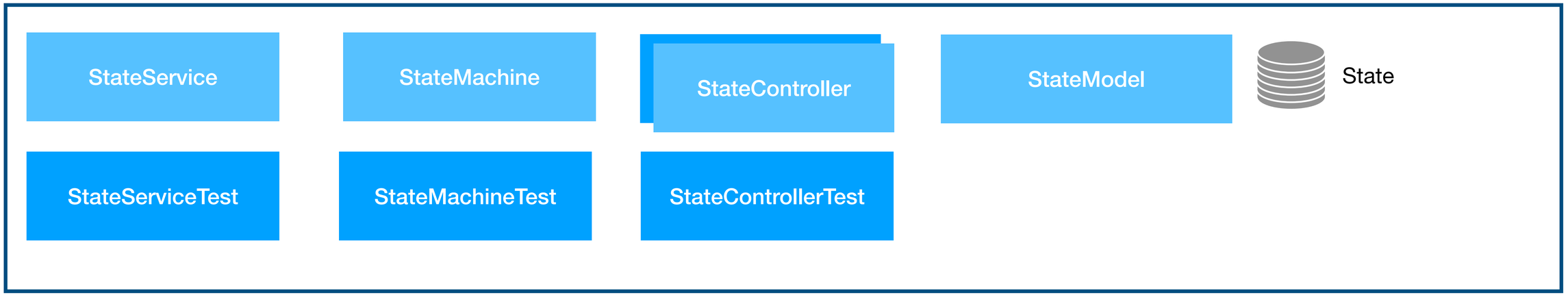

Service
ServiceController
StateMachine
StateController
EntityServiceModel
EntityStore
ServiceTest
ServiceControllerTest
StateMachineTest
StateControllerTest
EntityServiceModelTest

Services

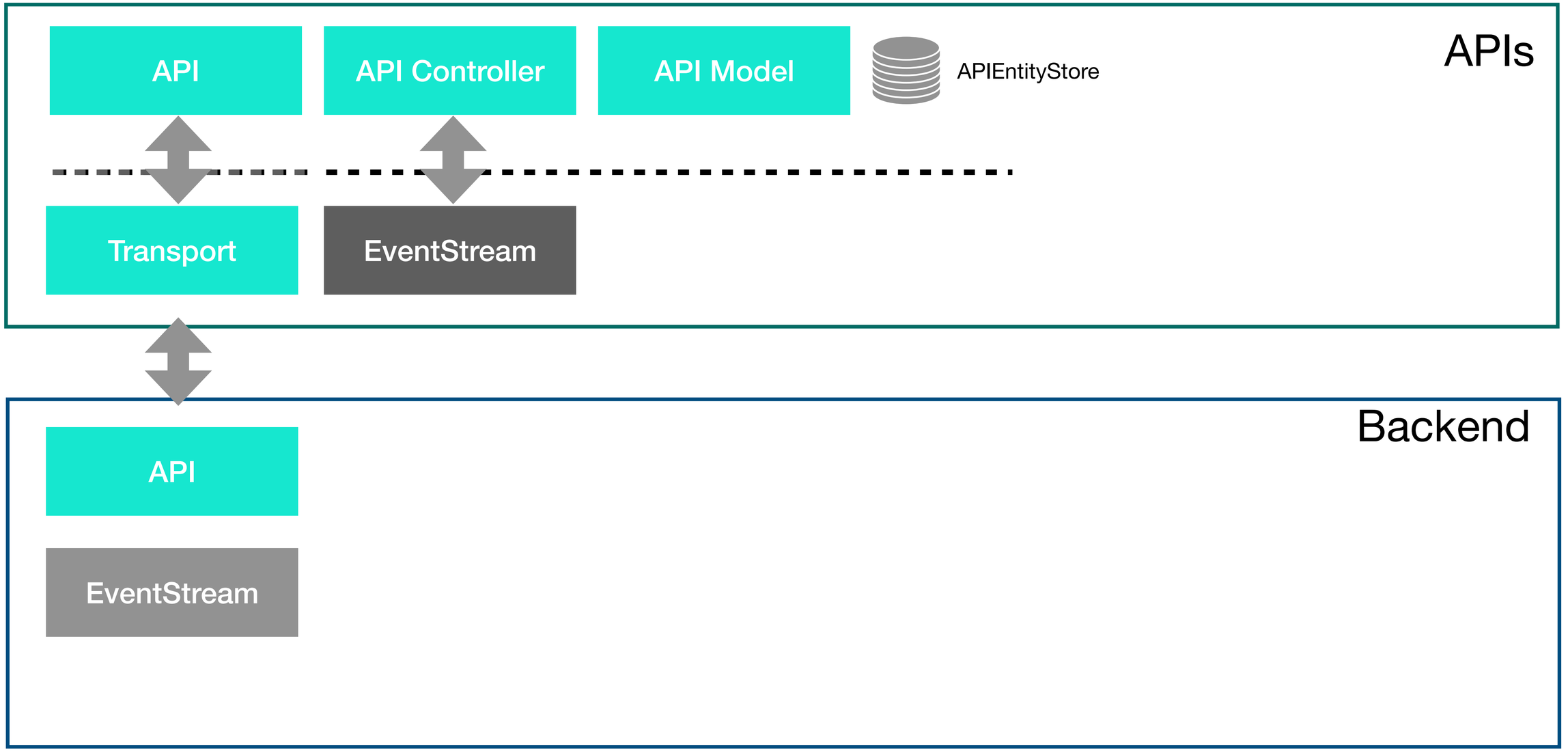


MV - Materialized View

State Machines

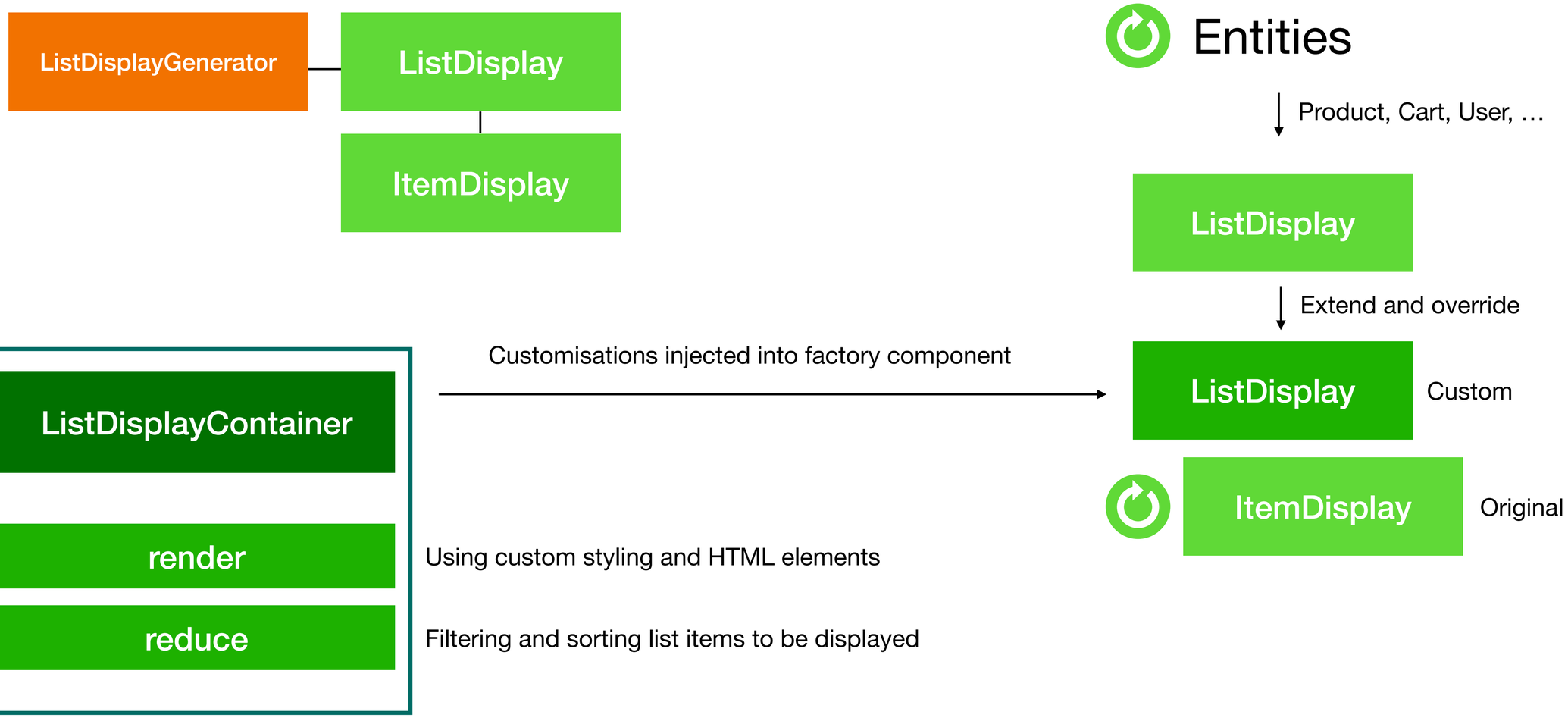


Entity APIs

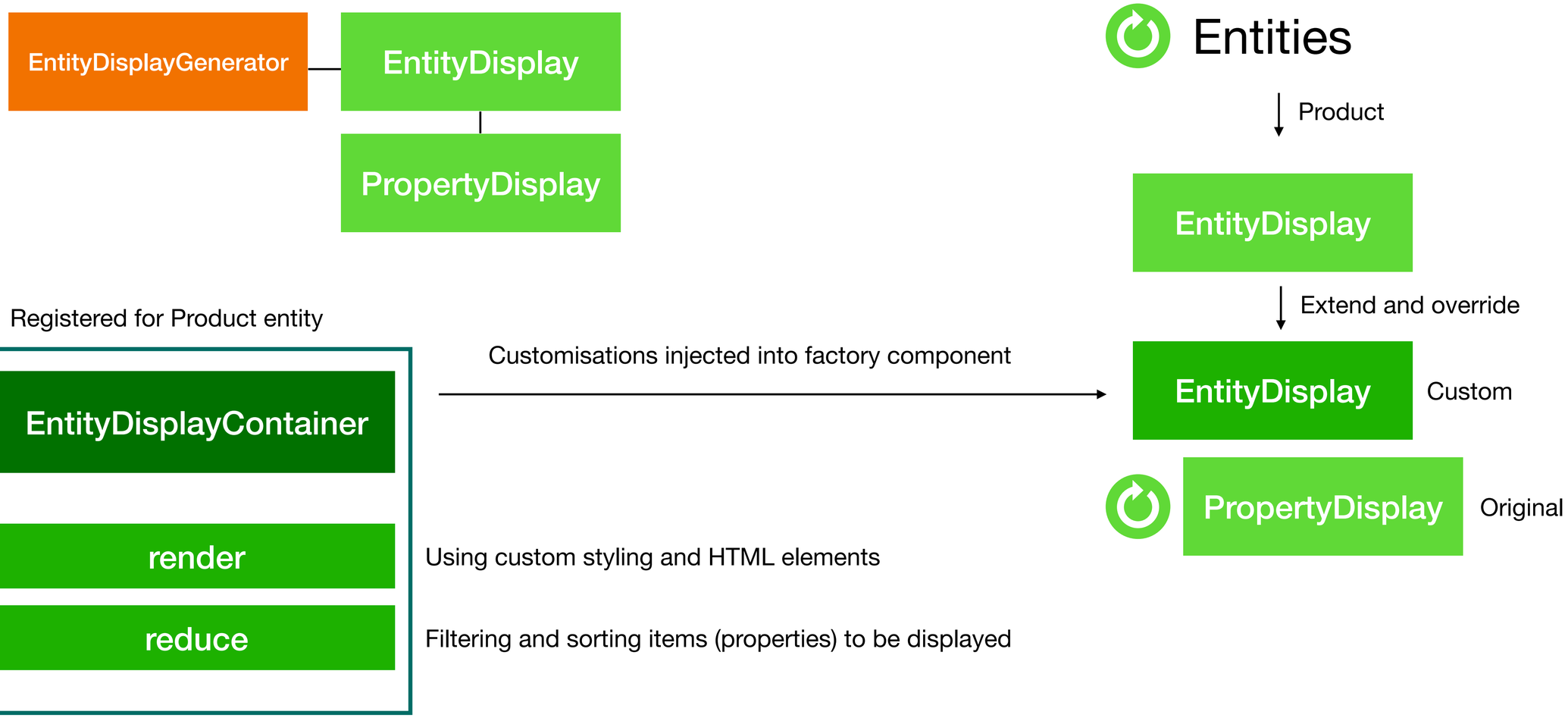

APIs
API
API Controller
API Model
APIEntityStore
Transport
EventStream
Backend
API
EventStream

Application Customisations

Customizing all List Displays



Customising specific Entity Displays



View hooks for specialisation

List Display

Displays list of entities or the properties of a single entity

MV

Data

Selector

select

Selects items to display

View methods

render

itemsToDisplay

Custom methods

Actions

selectItem

removeItem

displayItem

removeAll

selectAll

Custom actions

Input List Display

Displays list of entity properties to edit (create, update or delete)

MV

Data

Selector

select

Selects items to display

View methods

render

itemsToDisplay

Custom methods

Actions

selectItem

updateItemValue

addItem

removeItem

Custom actions

Item Display

Displays single value, typically an entity property

MV

Data

Selector

select

Selects items to display

View methods

render

valueToDisplay

Custom methods

Actions

select

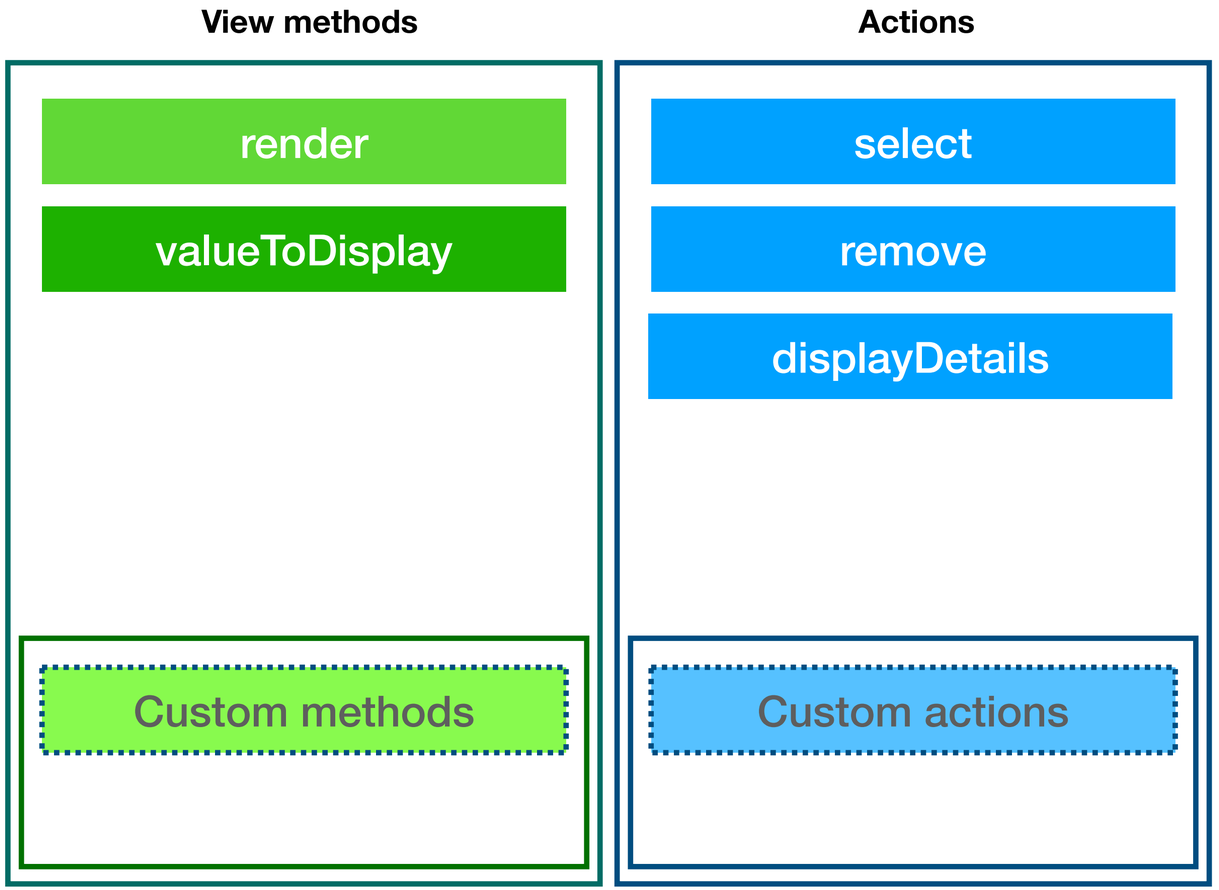
remove

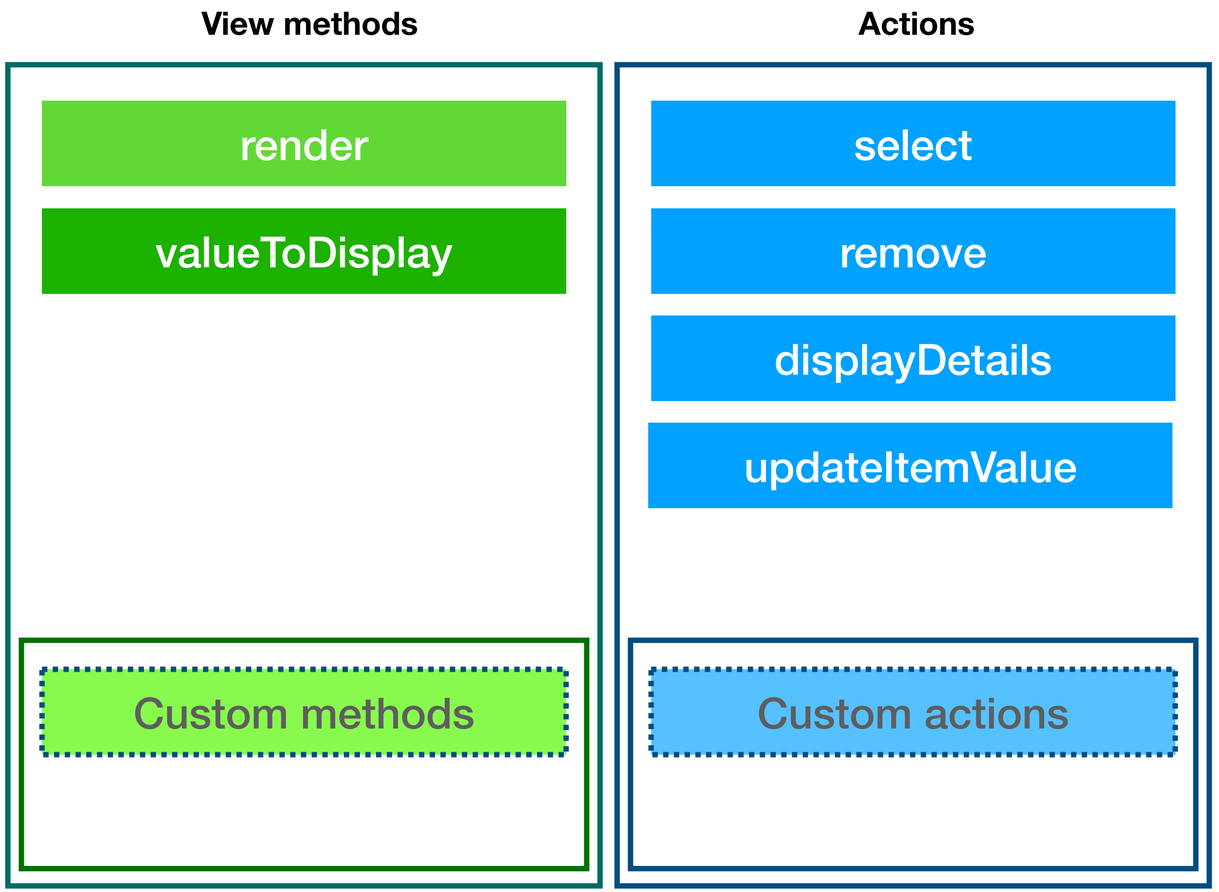
displayDetails

Custom actions

Item Display

Rendered and Managed by List Display (acting as a Materialized view)



Input Item Display

Rendered and Managed by List Input Display (acting as a Materialized view)