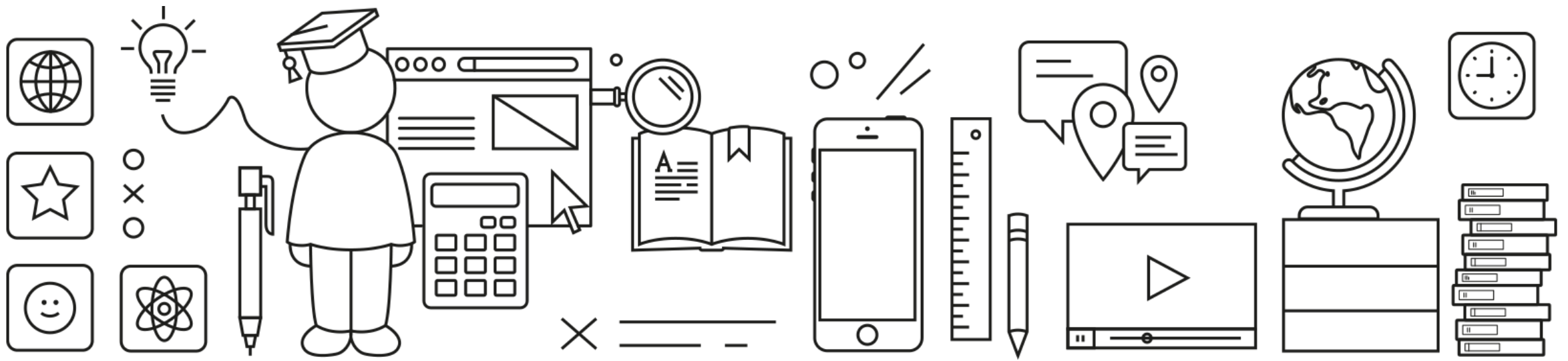




SAP Customer Experience

SAP Hybris Commerce Backoffice Framework Developer Training

Enhancing Your Cockpit



Solr Search in Backoffice

Solr Search in Backoffice

Saved Queries

Authority Groups

Dynamic Forms

ZK Charts

Switching Perspectives

SSO in Backoffice

HMC Migrator

Exercise

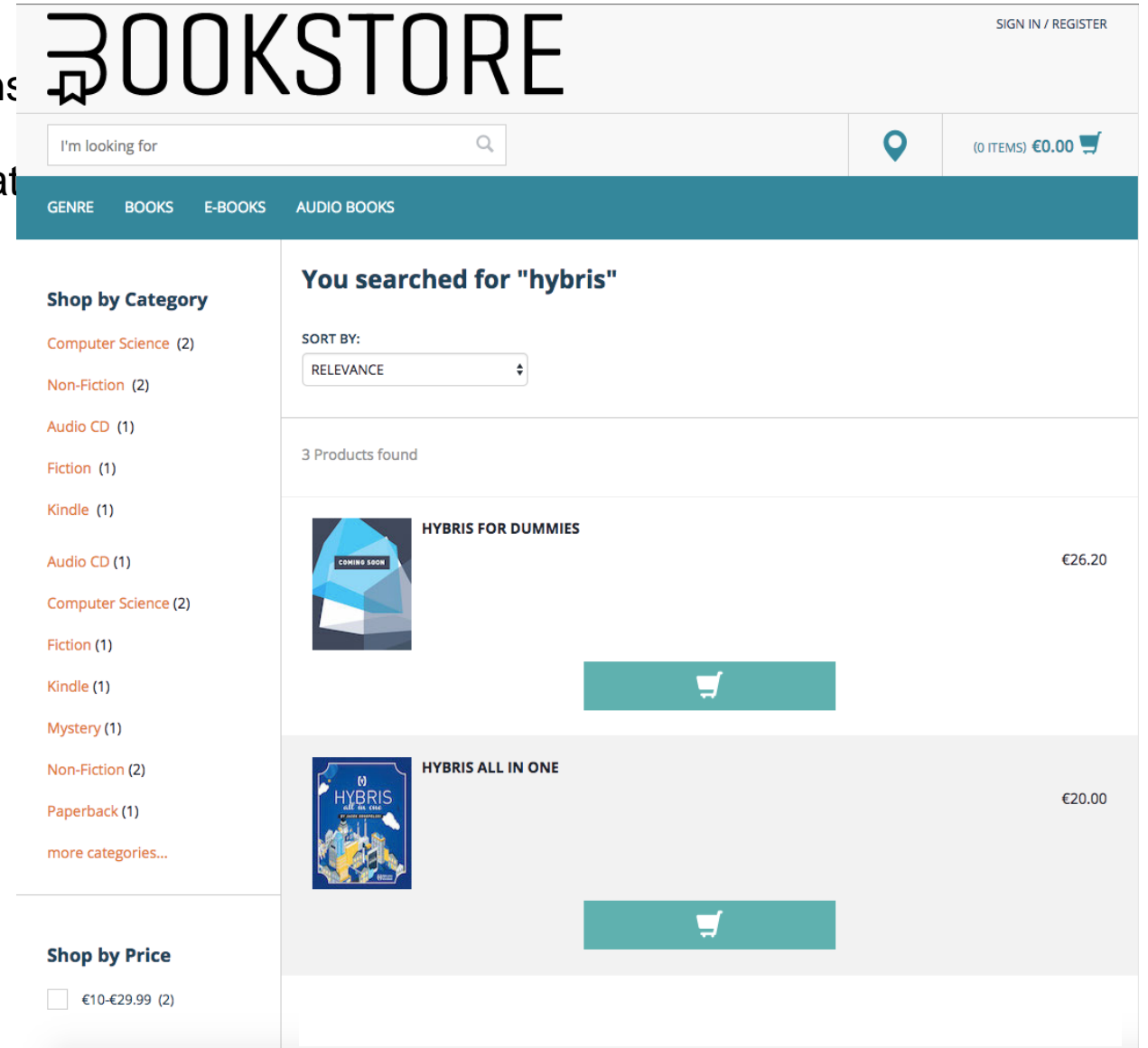
Commerce Platform • Search & Navigation Module

- SAP Commerce Accelerator comes with Solr integration by default
- Solr is a standalone enterprise search server with Webservices like API
- "Solr Facet Search" comes with Search & Navigation and:
 - supports multi-catalog, multi-language, multi-currencies
 - can be configured
 - provides advanced full-text search capabilities
 - is optimized for high volume web traffic



Main Benefits

- Performance: sub-second performance over millions
- Configuration: stop-words, synonyms, boosting of at
- Faceted navigation (right)
- Enhanced search syntax
- Spelling suggestions
- Autocorrect



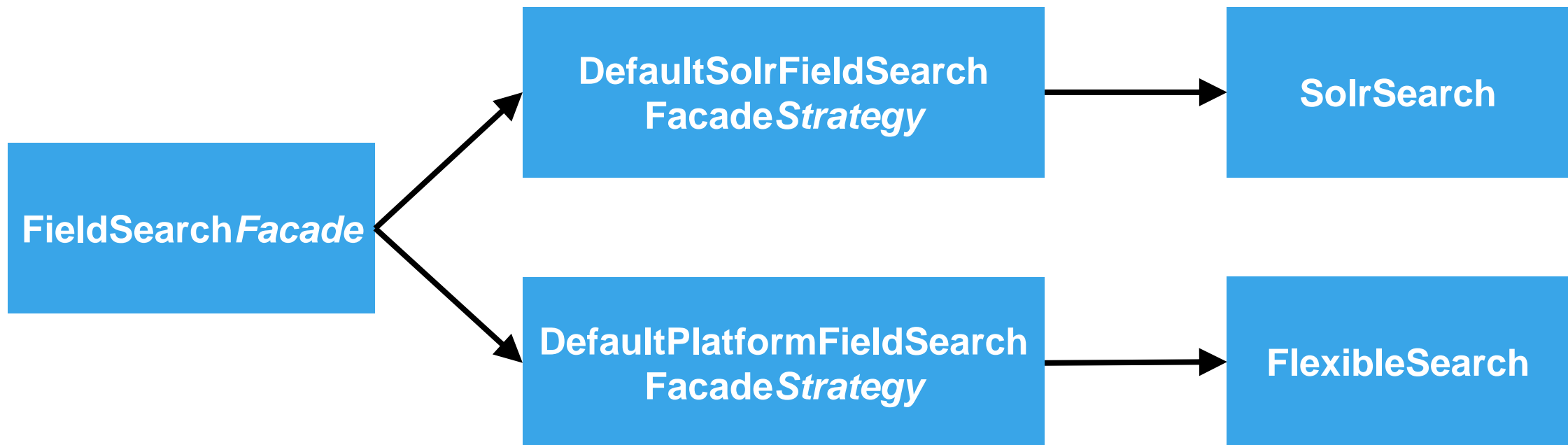
Solr Search in the Backoffice

- With Solr enabled in Backoffice, it's possible to browse for products using facets
- You can also configure additional facets on any Product attribute.

The screenshot shows the Solr Search Backoffice interface. At the top, there are two tabs: 'catalog: ElectronicsClassification' (marked with a blue circle and a yellow '1') and 'catalog: Electronics Product Catalog' (marked with a yellow '2'). Below the tabs is a search bar (marked with a yellow '5'). The main area displays various facets: 'Audio Recorder (0/1)' with a radio button for 'True (2)'; 'Catalog (2/4)' with checkboxes for 'ElectronicsClassification (1)' (checked, marked with a yellow '4'), 'Electronics Product Catalog (542)' (checked), 'Default-Catalog (2)', and 'Apparel Product Catalog (3870)'; 'Catalog Version (0/3)' with checkboxes for 'ElectronicsClassification : 1.0 (1)', 'Electronics Product Catalog : St...', and 'Electronics Product Catalog : O...'; 'Category (0/50)' with checkboxes for 'Brands (542)', 'Brand_88 (96)', 'Brand_5 (248)', 'Brand_10 (108)', and '851 (58)', plus a 'Show All' link; 'Colour (0/12)' with checkboxes for 'Black (2)', 'White (4)', 'Silver/Black (2)', 'Silver (56)', and 'Red (14)', plus a 'Show All' link; 'Price (0/4)' with radio buttons for '70-99.99 (24)', '20-69.99 (38)', '100-100000 (254)', and '0-19.99 (50)'; 'Price Value (0/50)' with checkboxes for '99.85 (4)', '91.51 (4)', '9.99 (4)', '9.05 (2)', and '89.96 (4)', plus a 'Show All' link; and 'Weight (0/50)' with checkboxes for '700 (4)', '696 (2)', '690 (2)', '638 (2)', and '582 (10)', plus a 'Show All' link. At the bottom, there are 'CLOSE' and 'CLEAR' buttons (marked with a yellow '6' and '7' respectively) and an 'APPLY FILTERS' button (marked with a yellow '8'). A yellow '3' is also present on the right side of the facets area.

Solr Search as a *Strategy*

- The `FieldSearchFacade` determines whether Solr is to be used for a given type.
- The `DefaultFieldSearchFacade` returns a list of objects PKs from Solr and then loads the list of actual `ItemModel` objects from the database

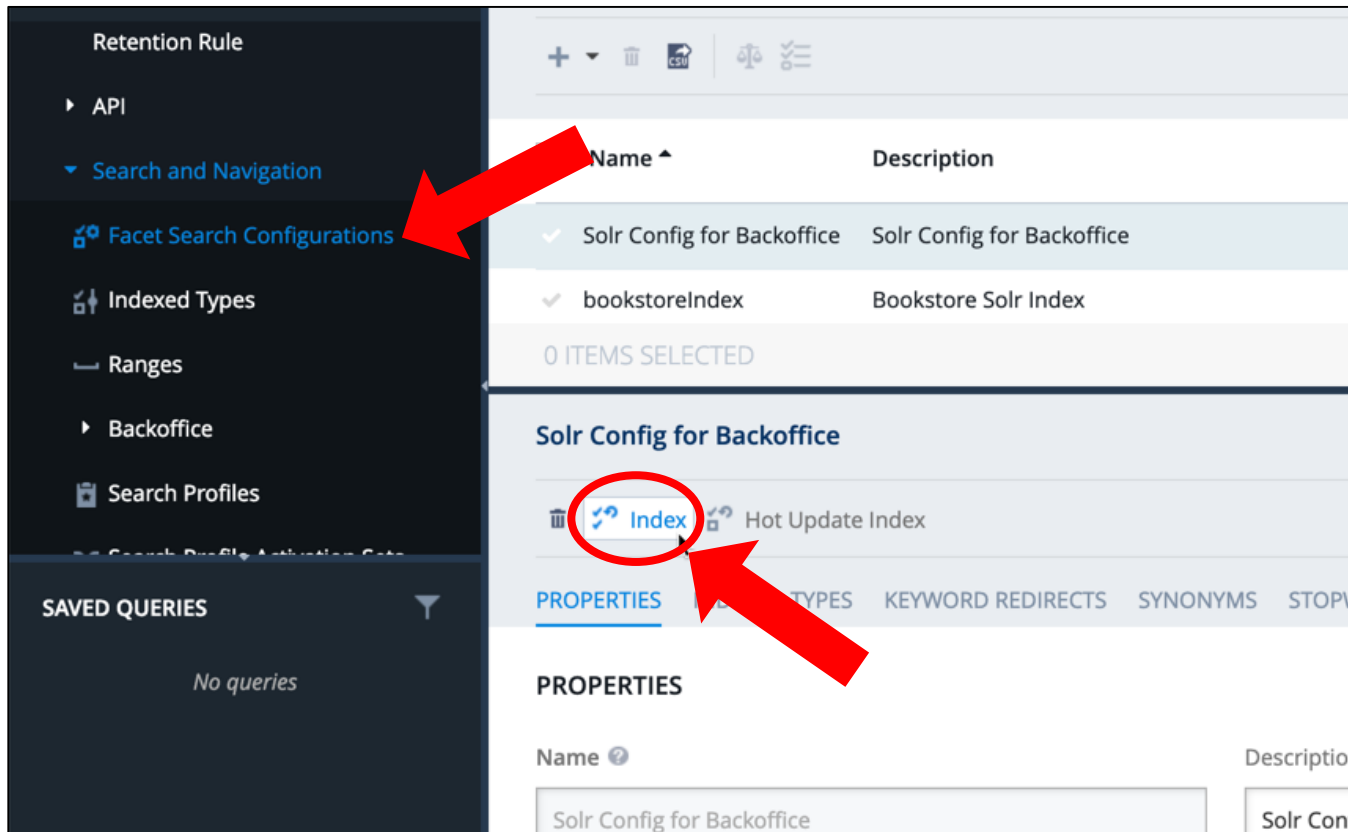


Enabling Facet Search in the Backoffice

localextensions.xml

The following extensions must be part of the build:

```
<extension name="backofficesolrsearch" />
<extension name="solrfacetsearchbackoffice" />
<extension name="solrserver" />
<extension name="solrfacetsearch" />
```



Then, go to:

System→

Search and Navigation→

Facet Search Configurations

...and run a full index on the new
Solr Config for Backoffice

Using Facet Search in the Backoffice (1)

The screenshot displays the SAP Book Management Backoffice interface. A search bar at the top contains the text "category: thriller". A red circle highlights this text, with a red arrow pointing to it from a box labeled "View or remove facets". Below the search bar, a modal window titled "Facets" is open. A red arrow points from a box labeled "Click funnel icon to OPEN facets selector" to the funnel icon in the top left of the modal. Inside the modal, under the "Category" section, the "Thriller (4)" option is selected with a blue checkmark. A red arrow points from a box labeled "Select facets" to this selected option. The modal also shows other categories like "Sciencefiction (4)", "Romance (2)", and "Philosophy (6)". At the bottom of the modal are "CLOSE" and "CLEAR" buttons. The background interface includes a sidebar with "CONTENT", "HOME", and "Book Management Tree", and a top bar with "REDEPLOY" and various icons.

SAP Book Management

REDEPLOY

SEARCH

category: thriller

View or remove facets

Click funnel icon to **OPEN** facets selector

Select facets

Category (1/20)

- ☒ Thriller (4)
- ☐ Sciencefiction (4)
- ☐ Romance (2)
- ☐ Philosophy (6)

Show All

CLOSE CLEAR

No items selected

Using Facet Search in the Backoffice (2)

The screenshot displays the SAP Book Management interface. A search bar at the top contains the text "category: thriller". A facet search popup window is open, showing various filters. The "Category" section is expanded, showing "Thriller (4)" selected with a blue checkmark. Other categories include "Self-Help (10)", "Sciencefiction (4)", "Romance (2)", and "Philosophy (6)". At the bottom of the popup, the "CLOSE" button is circled in red. A red box highlights the "CLOSE" button and the text "Click CLOSE icon (or anywhere outside the popup window) to close facets selector and view filtered results".

Facet Search Results:

- ApprovalStatus (0/1)**
 - ☐ Approved (4)
- Catalog (0/1)**
 - ☐ Bookstore Product Catalog (4)
- Catalog Version (0/2)**
 - ☐ Bookstore Product Catalog : St...
 - ☐ Bookstore Product Catalog : O...
- Category (1/20)**
 - ☒ Thriller (4)
 - ☐ Self-Help (10)
 - ☐ Sciencefiction (4)
 - ☐ Romance (2)
 - ☐ Philosophy (6)

▼ Show All

CLOSE CLEAR

No items selected

Using Facet Search in the Backoffice (2)

The screenshot displays the SAP Book Management backoffice interface. The top navigation bar includes the SAP logo, 'Book Management' dropdown, and a 'REDEPLOY' button. The left sidebar contains a 'CONTENT' section with a search bar and a 'Filter Tree entries' button, and a 'HOME' section with a 'Book Management Tree' and a 'Book' link. The main area shows a search bar with a magnifying glass icon and a 'SEARCH' button. Below the search bar, a filter is applied: 'category: thriller'. A red box highlights the text 'View filtered results'. Below the filter, a toolbar contains various icons for actions like adding, deleting, refreshing, and sorting. A red circle highlights the text '4 items'. The main content area displays a table with the following data:

Identifier	Book.authors	Catalog version
Two Gentlemen of Pamplona	William Rattlespear [William Rattlespear]	Bookstore Product Catalog : Staged
The eCommerce Murderess	Radisa Pantic [Radisa Pantic]	Bookstore Product Catalog : Staged
Two Gentlemen of Pamplona	William Rattlespear [William Rattlespear]	Bookstore Product Catalog : Online
The eCommerce Murderess	Radisa Pantic [Radisa Pantic]	Bookstore Product Catalog : Online

The bottom of the interface shows a status bar with 'No items selected' and a lock icon.



Saved Queries

Solr Search in Backoffice

Saved Queries

Authority Groups

Dynamic Forms

ZK Charts

Switching Perspectives

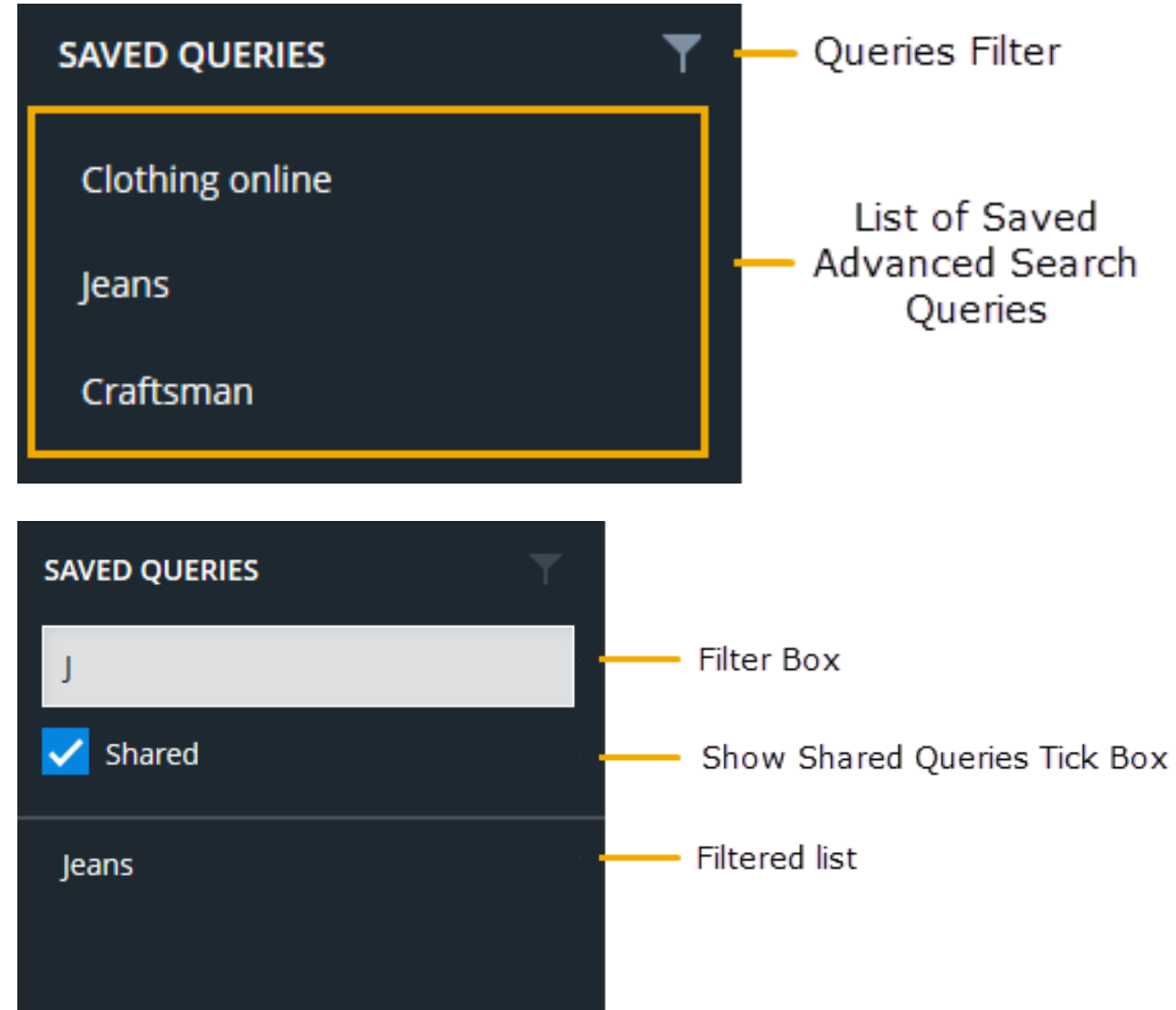
SSO in Backoffice

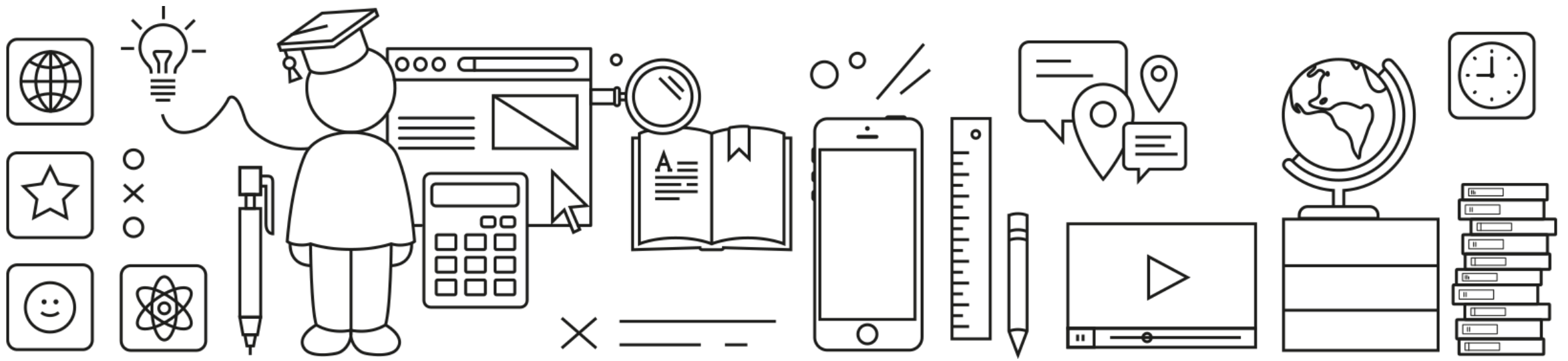
HMC Migrator

Exercise

Saved Queries

- The [Saved Queries List Widget](#) lets you save advanced queries.
 - Its Query Filter facilitates filtering of the listed queries
 - You can also share saved queries with other users or user groups
 - Pressing the Save button in the Advanced Search Widget generates a **BackofficeSavedQuery** instance, which is passed to the List widget.

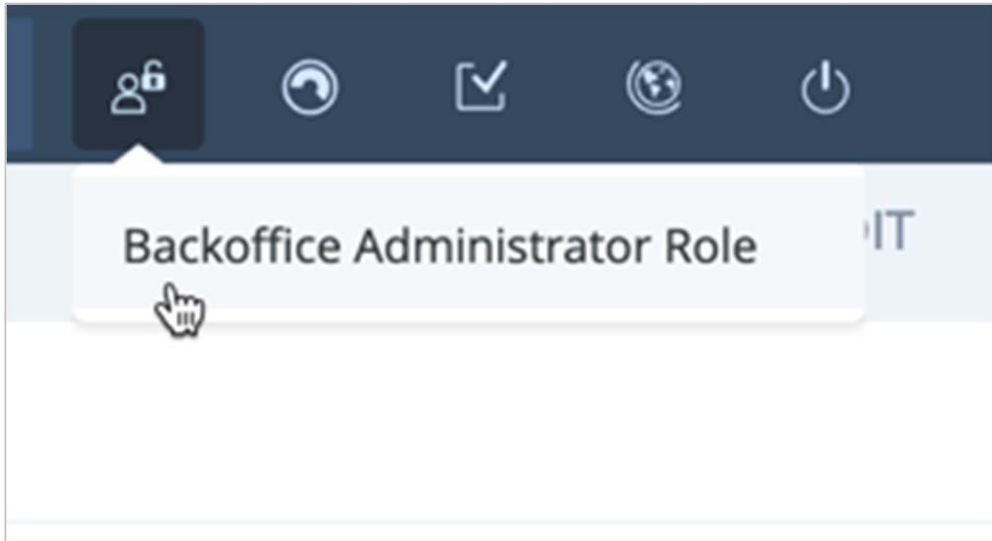




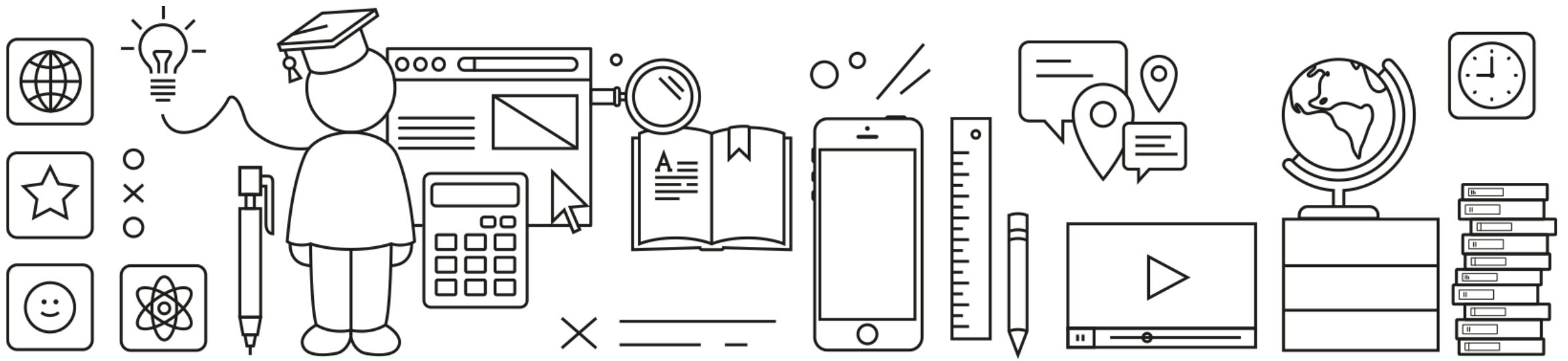
Authority Groups

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Exercise

Authority Groups



- Users are assigned different Backoffice Roles, e.g. Product Manager, Translator
 - Such roles can be combined into Authority Groups
- You can restrict visibility of a specific instance of a widget for certain users, user groups, or roles
 - A Backoffice cockpit will then show a different application mash-up to different business users
 - `<widget ... access="role_B, role_C" />`
- You can apply context-based widget configuration based on a single user, user group, or role
 - `<context ... principal="role_B" />`
- There can only be one active authority group at a time in a given Backoffice application.



Dynamic Forms

Solr Search in Backoffice
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Exercise

Dynamic Forms - 1

Dynamic Forms enable an element of **responsiveness** within form segments

They work with Editor Area and Wizard widgets



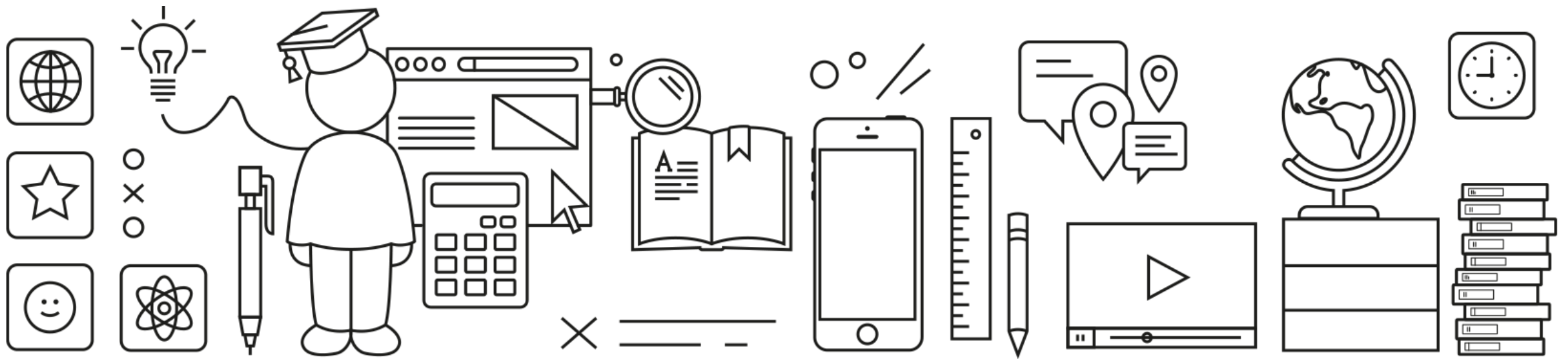
The image shows a form segment with three input fields. The first field is labeled 'Min order quantity' and contains the value '6'. The second field is labeled 'Max order quantity' and contains the value '16'. The third field is labeled 'Price quantity' and contains the value '1'. This third field is highlighted with a red border, indicating it is disabled. The form is part of a larger segment, as indicated by the surrounding black border.

Here, the **Price quantity** field is **disabled** if the value of **Min order quantity** is **greater than 5** or if the value of **Max order quantity** is **less than 15**.

Dynamic Forms - How are they configured?

cockpit-config.xml

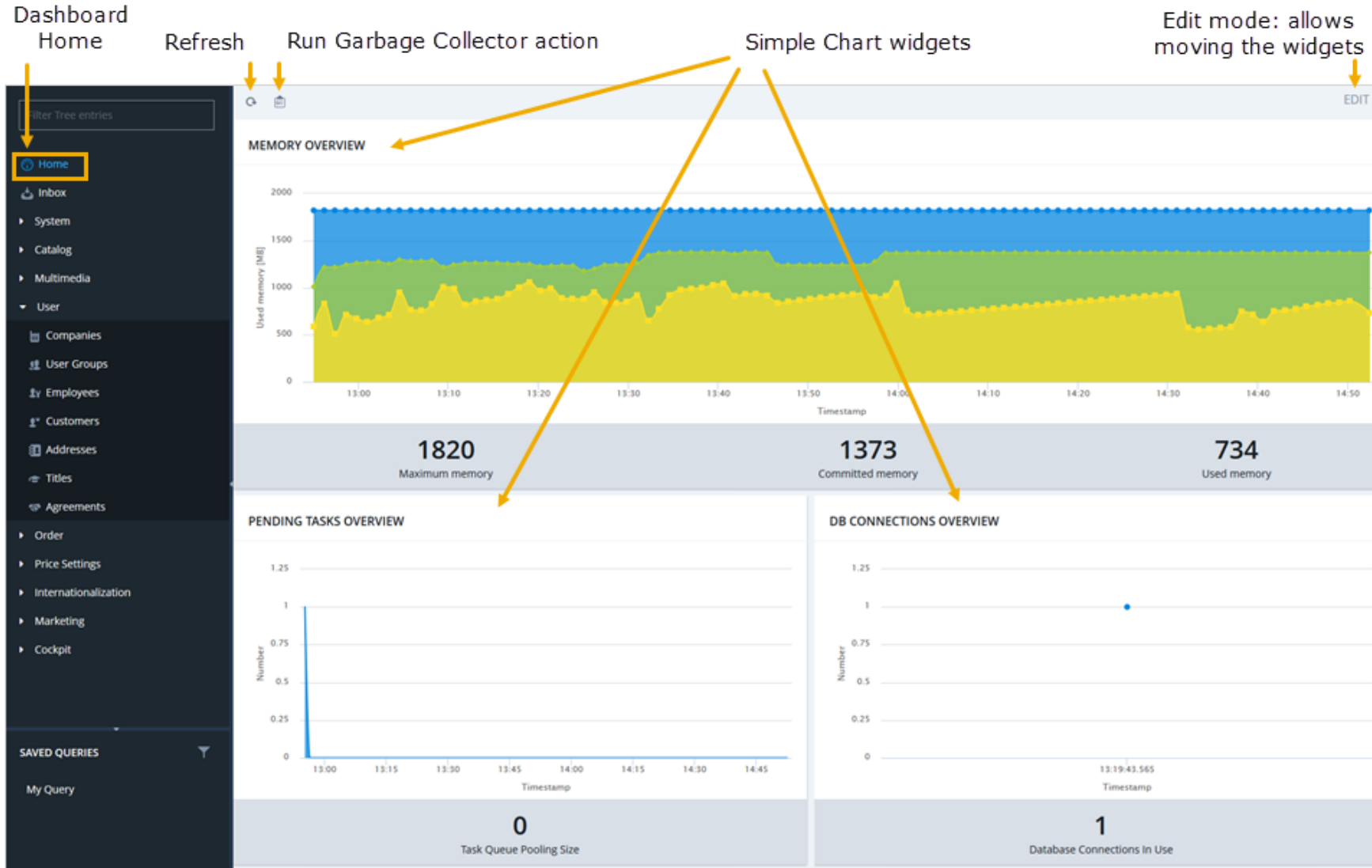
```
<context type="Book" component="editorAreaDynamicForms" ...>
  <df:dynamicForms ...>
    <df:attribute id="uniqueId"
      triggeredOn="*"
      qualifier="priceQuantity"
      disabledIf="(minOrderQuantity > 5 ||
        maxOrderQuantity < 15)" />
  </df:dynamicForms>
</context>
```



ZK Charts

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Building a Dashboard - 1



When the default Home node in the Explorer Tree is selected in the OOTB configuration, you see the Dashboard.

It, too, is a widget and, in turn, contains a set of Chart Widgets.

Building a Dashboard - 2

ZK Charts

myextension-backoffice-widgets.xml

```
<widget id="my_dashboard" widgetDefinitionId="com.hybris.cockpitng.dashboard"
        slotId="some_slot" template="false">
  <widget id="childWidget1" widgetDefinitionId="sample.widgets.id"
        slotId="dashboardWidgets" template="false">
    <!-- widget's setting -->
  </widget>
  <widget id="childWidget2" widgetDefinitionId="sample.widgets.id"        slotId="dashboardWidgets"
template="false">
    <!-- widget's setting -->
  </widget>
  <!-- and so on -->
</widget>
```

Building a Dashboard - 3

If you want to configure the layout of the grid, you have to provide a configuration for the dashboard component:

myextension-backoffice-config.xml

```
<context component="dashboard">
  <dsb:dashboard defaultGridId="regular">
    <dsb:grid minScreenWidth="0" maxScreenWidth="700" id="small" rowHeight="250">
      <dsb:placement widgetId="childWidget1" height="1" width="1" x="0" y="0"/>
      <dsb:placement widgetId="childWidgetN" height="1" width="1" x="0" y="1"/>
    </dsb:grid>
    <dsb:grid minScreenWidth="701" id="regular" unassigned="append">
      <dsb:placement widgetId="childWidgetN" height="1" width="2" x="0" y="0"/>
      <dsb:placement widgetId="childWidget2" height="1" width="1" x="0" y="1"/>
      <dsb:placement widgetId="childWidget1" height="1" width="1" x="1" y="1"/>
    </dsb:grid>
  </dsb:dashboard>
</context>
```



Switching Perspectives

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Switching Perspectives

- The Perspective Container widget can contain multiple widgets
- The nodes in the Explorer Tree widget can be associated with different perspectives
- Like in the Administration cockpit:
 - Clicking on the “Home” node displays the dashboard
 - Clicking on any other node, displays the Collapsible Container that contains Advanced Search, etc.

Filter Tree entries

Home

Inbox

▾ System

▸ OAuth

▸ CORS Filter

▸ Advanced Configuration

▸ Tools

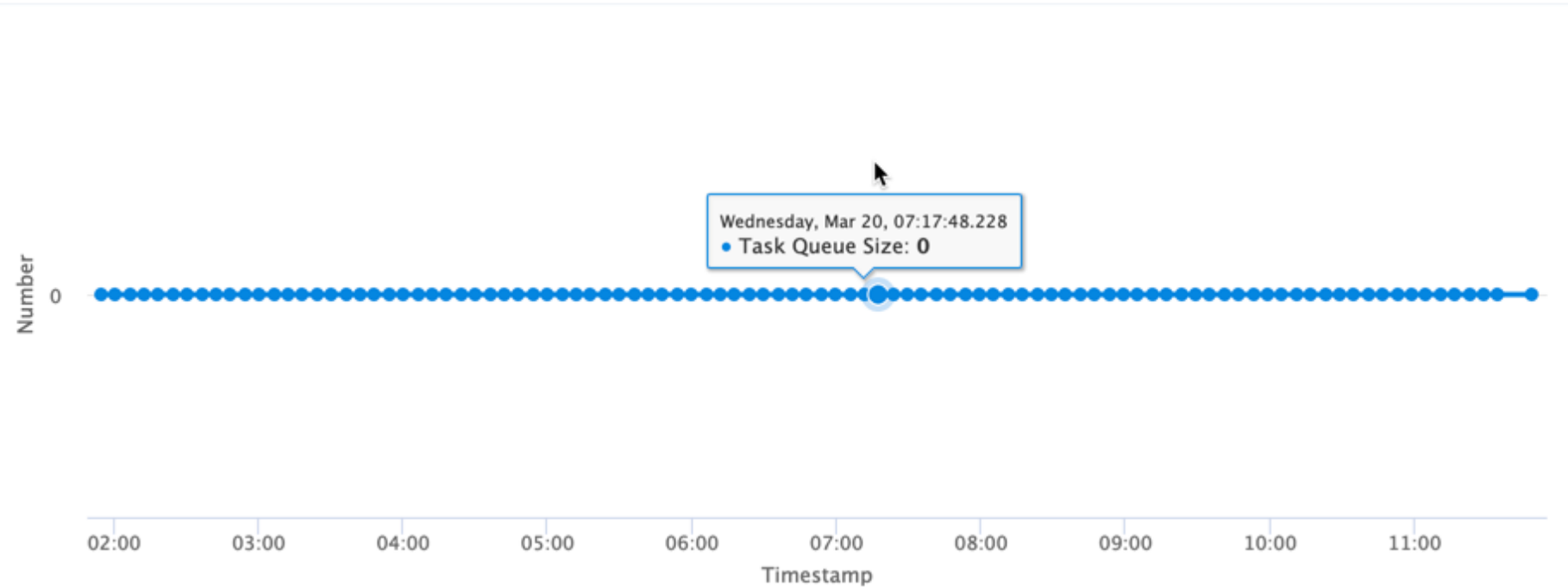
▸ Output Documents

SAVED QUERIES

*No queries*

EDIT

Task Queue Overview



0

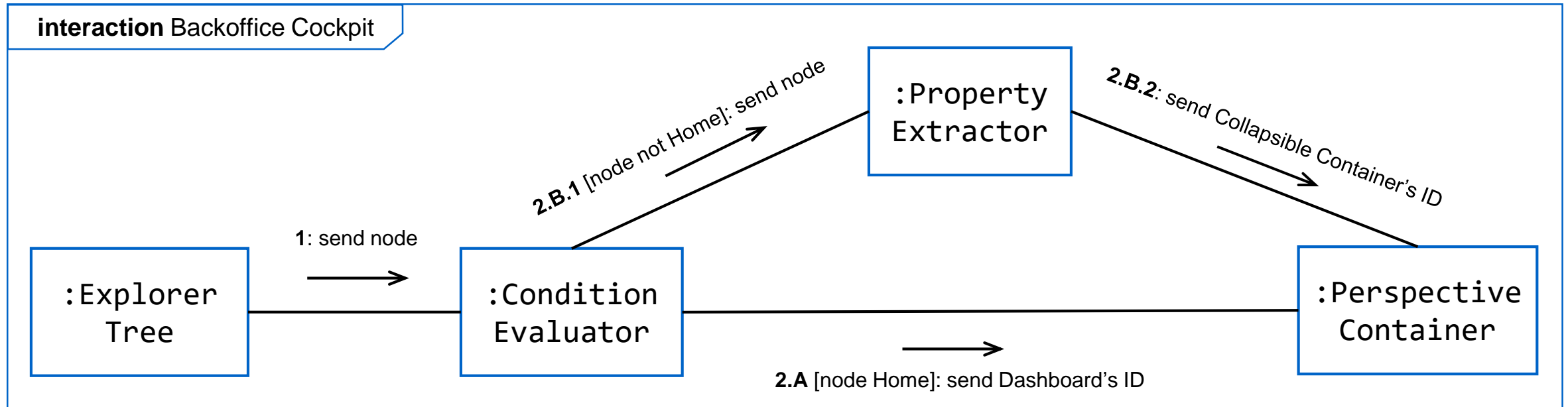
Task Queue Size

Pending Tasks Overview

Db Connections Overview

Perspective Switching Mechanism

- A communication channel must be set up in between the Explorer Tree and the Perspective Container widgets
- The Perspective Container widget has an input socket called selectPerspectiveById
- Through this socket, other widgets can switch the perspective
- Two adapter widgets are used to decide which perspective should be displayed



1

The selected node is sent

2.B.1

IF the node is not HOME
THEN

the node ID is sent through the “false” socket

2.A

IF the node is HOME
THEN

“HOME” is sent through the “true” socket

2.B.2

the ID of the the Collapsible Container is sent

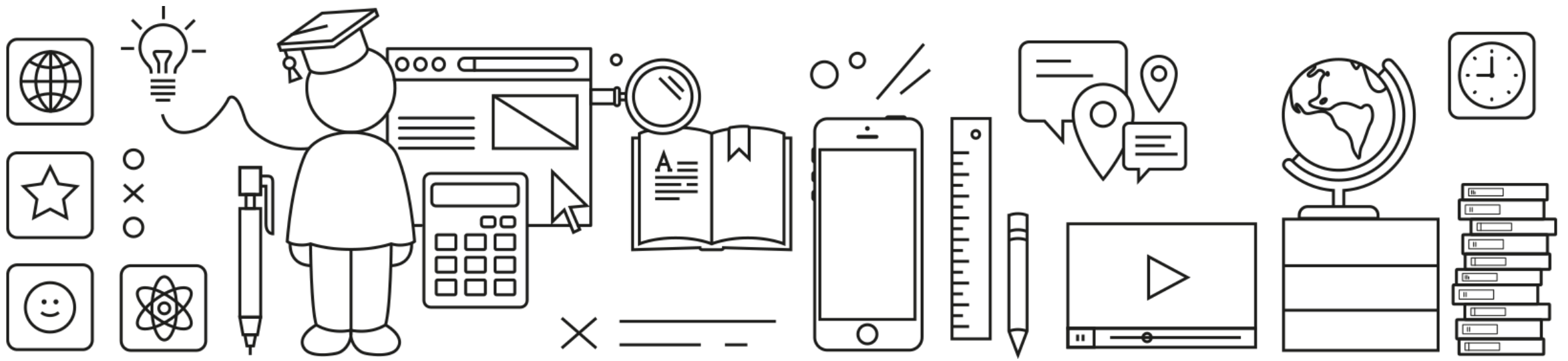


SSO in Backoffice

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Single Sign-On in Backoffice

- Backoffice can be used in conjunction with the `samlsinglelogin` extension.
- This enables SAP Commerce Cloud to connect with an External Identity Provider (IDP)
- At user login, the `samlsinglelogin` extension creates a new User in the system with username/name provided by the IDP
- After authenticating the user with the IDP, `samlsinglelogin` creates a remember-me cookie that Backoffice consumes to authenticate the SSO user
- `backofficeLoginDisabled=false` allows newly created users to login to Backoffice
- By default, new users are added to the `backofficeuser` group



HMC Migrator

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Migration Tools – (Migrating legacy cockpits into Backoffice)

[HMC Config Migrator](#) (only up to version 6.6)

- Assists in migration of HMC settings, visible as a new perspective in Backoffice

[Cockpit Migrator](#) (up version 6.4)

- Facilitates migration of the existing Product Cockpit configuration to Backoffice Product Cockpit

Notes:

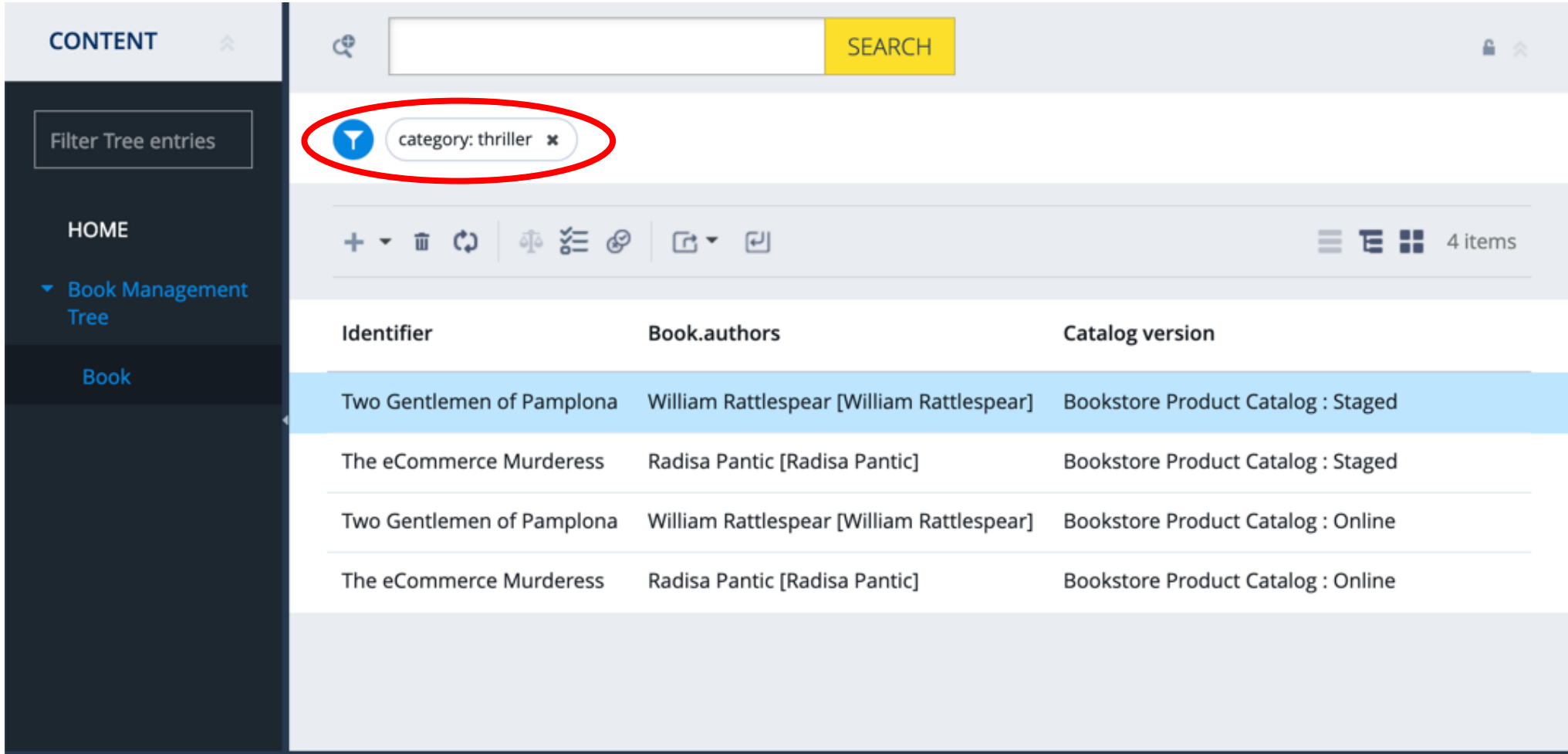
- Download links to both Backoffice extensions are provided in their respective help.hybris.com documents

Exercise 10



Exercise 10 – Enhance your Cockpit

1. Configure Backoffice to use Solr



The screenshot displays the Backoffice Cockpit interface. On the left is a dark sidebar with a 'CONTENT' header and a 'Filter Tree entries' button. Below this, the 'HOME' section is expanded, showing 'Book Management Tree' and 'Book'. The main area features a search bar with a magnifying glass icon and a yellow 'SEARCH' button. Below the search bar, a filter is applied: 'category: thriller', indicated by a blue funnel icon and a red circle. A toolbar with various icons (add, delete, refresh, etc.) is visible above the table. The table itself has three columns: 'Identifier', 'Book.authors', and 'Catalog version'. It contains four rows of data, with the first row highlighted in blue.

Identifier	Book.authors	Catalog version
Two Gentlemen of Pamplona	William Rattlespear [William Rattlespear]	Bookstore Product Catalog : Staged
The eCommerce Murderess	Radisa Pantic [Radisa Pantic]	Bookstore Product Catalog : Staged
Two Gentlemen of Pamplona	William Rattlespear [William Rattlespear]	Bookstore Product Catalog : Online
The eCommerce Murderess	Radisa Pantic [Radisa Pantic]	Bookstore Product Catalog : Online

Exercise 10 – Enhance your Cockpit

2. Enable Saved Queries

CONTENT

Filter Tree entries

HOME

Book Management Tree

Book

SEARCH HI...

SAVED QUERIES

Books Staged

Book

Global Operator: And

Include subtypes

SEARCH

Attribute	Comparator	Value	Sort Order	
Article Number	Equals			✗
Identifier	Equals	en		✗
Catalog version	Equals	Bookstore Product Catalog : Staged		✗
Approval	Equals			✗
Approval	Equals			+

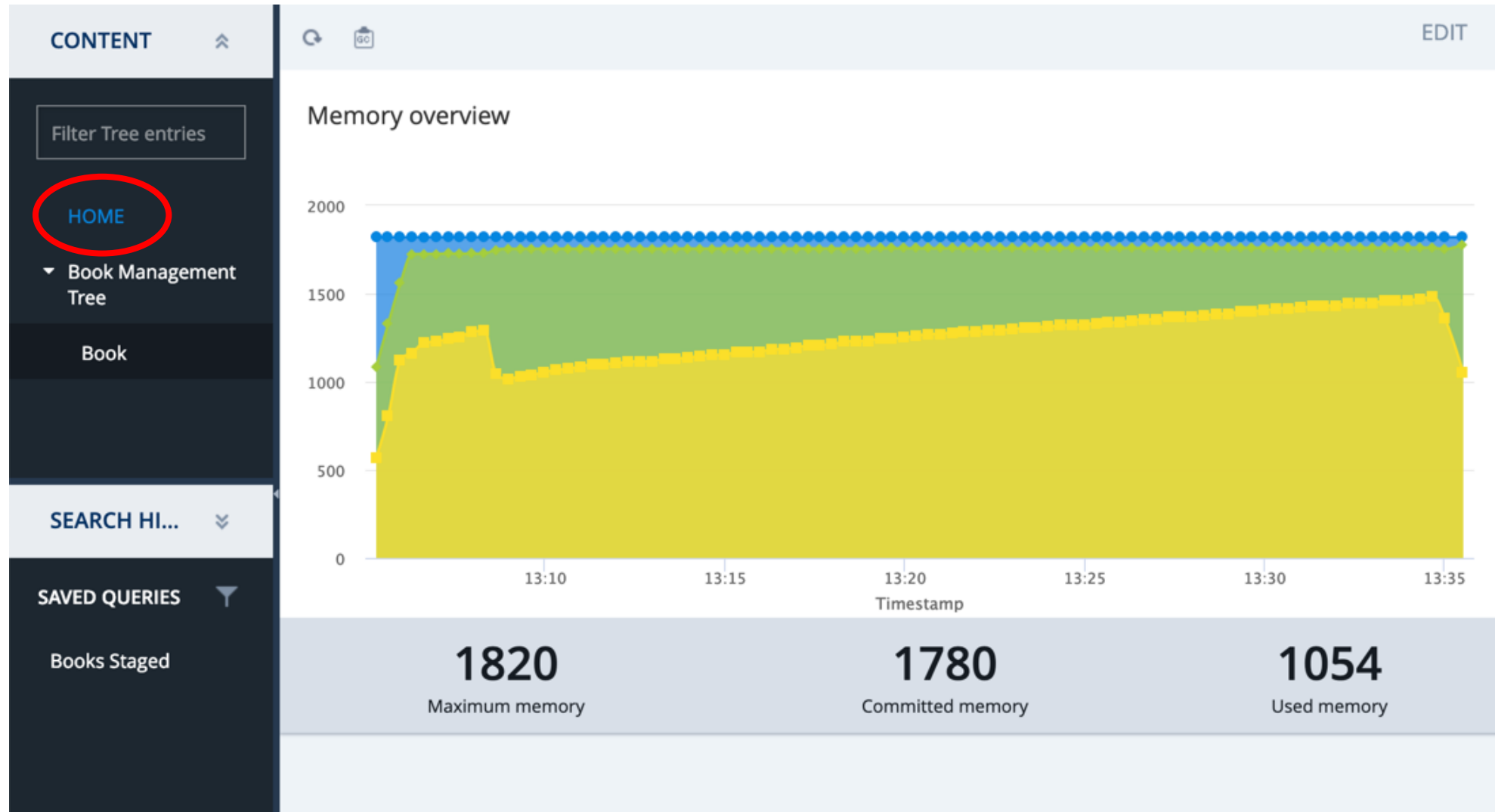
+ - 🔄 ⚙️ 🔍 📄

1 / 2 92 items

Identifier	Book.authors	Catalog
The Strange Case of the Disappearing hybris Website		Booksto
Withering Heights	Charlotte T. Bron [Charlotte T. Bron], Dale Carnaby [Dale Carnaby]	Booksto
How to Make Friends and Infuriate People	Thomas Hardy [Thomas Hardy]	Booksto

Exercise 10 – Enhance your Cockpit

3. Add a Dashboard



Thank you.

