

IQA Introduction

NiUG Toronto - Aug 17, 2017
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Together we can design our world

Agenda and Format

August 17, 2017

10:30am - 12:30am (lunch at 12:30PM)

Break 11:30 - 5 minutes Coffee in/out

- IQA terminology and Structure
- AdHoc terminology and Structure
- Common and Custom Business Objects
- Open Question session

IQA

Intelligent Query Architect

What is IQA

Intelligent
Query
Architect

The query and reporting tool built into iMIS

Will display standard and custom data in the system.

Examples of IQAs

Lookup member data

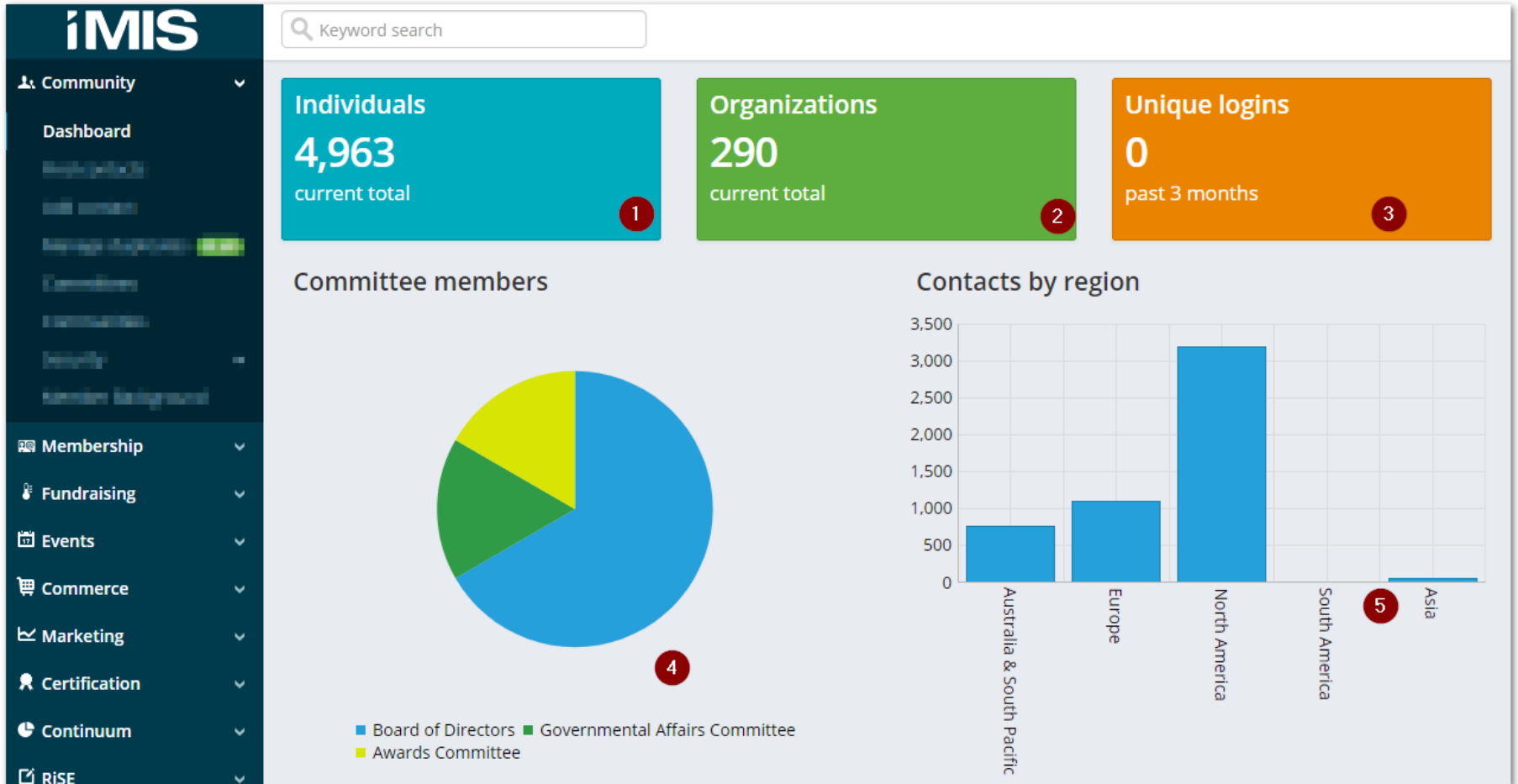
Lookup member demographic data

Lookup event registrations

Examples:

- How many members/donors/clients do we have in a region?
- How much revenue did our courses earn last year?
- List of events with registration counts

Spot the IQA...



Spot the IQA...

The screenshot shows a web application interface for finding people. On the left is a dark sidebar menu with categories like Community, Membership, Fundraising, Events, Commerce, Marketing, and Certification. The main content area has two tabs: 'People' (marked with a red circle 3) and 'Organizations' (marked with a red circle 4). Below the tabs is a search form titled 'Enter search criteria to find people' (marked with a red circle 2). The form includes a dropdown menu 'Select a query' and several input fields: 'Last name starts with' (containing 'smith'), 'First name starts with', 'City starts with', 'State Province' (dropdown with '(Any)'), 'Country' (dropdown with '(Any)'), 'ID equals', and 'Company starts with'. A blue 'Find' button is at the bottom left of the form (marked with a red circle 1).

IQA Results

The screenshot shows a data table interface with the following elements:

- 1**: Export format icons (Word, Excel, PDF, CSV, XML) in the top right corner.
- 2**: Page selector buttons (1, 2, 3) in the top left.
- 3**: Page number and skip to page controls (Page: 1 of 3 Go) in the top center.
- 4**: Record count and show all link (show all 57) in the top left.
- 5**: Column headers (ID, Name, Title, Company name, Full Address, Status, Email) in the table header.

ID	Name	Title	Company name	Full Address	Status	Email
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1. Export format
2. Page Selector
3. Page number and skip to page
4. Number of records and show all
5. Column names (click to sort)



IQA

Purpose:

Extraction of data from iMIS database for display on web site as:

- Data grid for staff/members
 - Export option - Excel, PDF
- Feed iParts/Reports with filtered data
 - member profile data
 - lookups - events, products, members
 - dashboards

IQA Structure

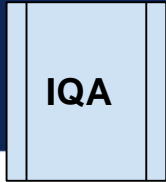
IQA gets data from Business Object(s):

- Tables
- Views

Which are:

- Joined
- Filtered (built-in or dynamic)
- Sorted

IQA Structure Diagram



Sources

- One or more business objects
- Joined on like/matching fields (FK)

Filters

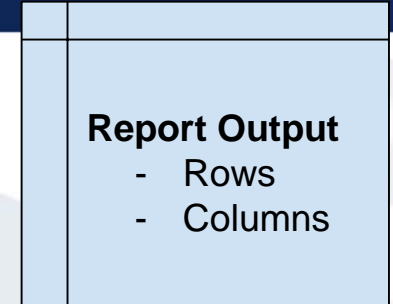
- Reduce information (number of rows) from BOs displayed in report

Display

- Determines what BO columns are shown in report
- Subtotal/grouping option

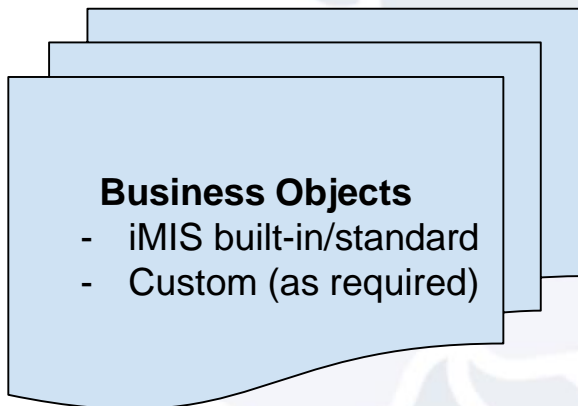
Sorting

- Controls which rows are displayed first
- One or more columns



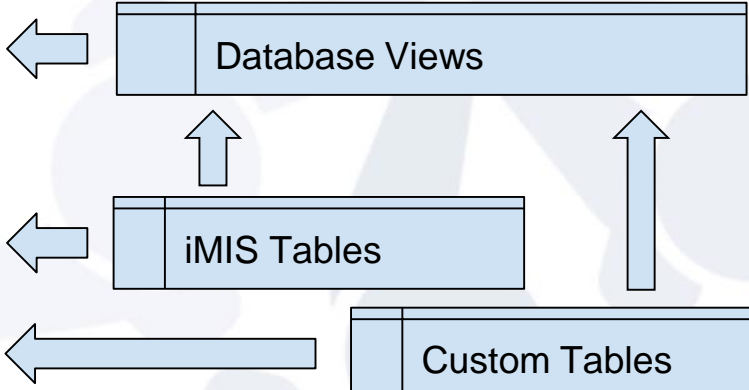
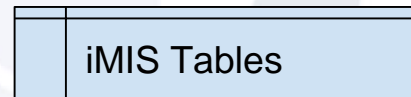
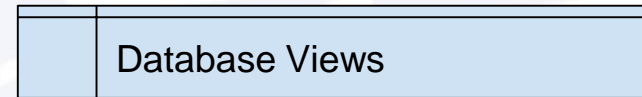
Report Output

- Rows
- Columns



Business Objects

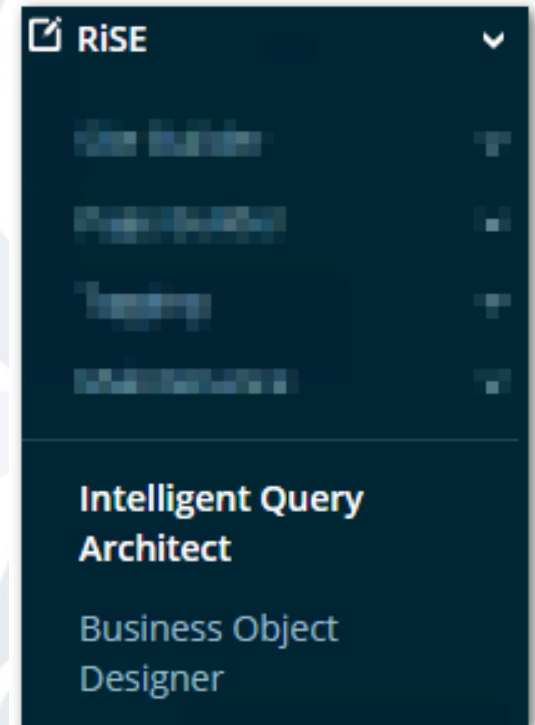
- iMIS built-in/standard
- Custom (as required)



IQA Creation

RiSE > Intelligent Query Architect Document Menu

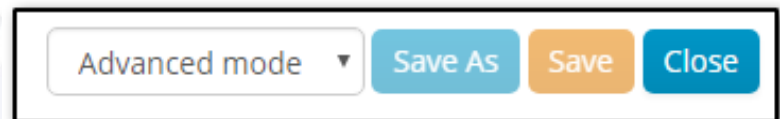
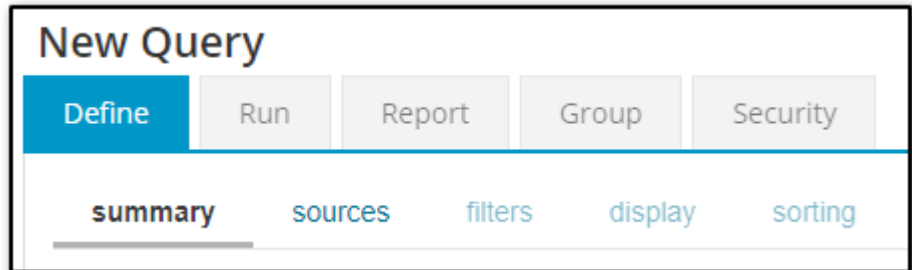
- Organize
 - Cut, Copy, Paste, Delete
- New
 - Create new IQA
- Edit
 - Modify existing IQA
- Import/Export/Versions
 - Revert to 'previous/good' version if needed
- Run
 - Run IQA



IQA Creation

RiSE > Intelligent Query Architect Folder > New or Edit

- Summary
 - Title and Description
- Sources
 - Business Objects and Joins
- Filters
 - Criteria and Prompts
- Display
 - Columns and Order
- Sorting
 - Column(s) and Direction



IQA Linking

Example: linking a member record to profile page

Query Display Columns

Only display unique results View selected columns ▾

Selected Refresh

Display	Property	Function	Alias	Link	Subtotal	Order
<input checked="" type="checkbox"/>	IMIS Id	None ▾	code_ID		<input type="checkbox"/>	
<input checked="" type="checkbox"/>	Full Name	None ▾	Name	~/party.aspx?ID=[code_ID]	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	Member Type	None ▾			<input type="checkbox"/>	
<input checked="" type="checkbox"/>	Company	None ▾			<input type="checkbox"/>	4 ▾

Code aliases are hidden, but are used by links.

Causes the Name to link to each individual user's profile page.

Online help: <https://goo.gl/ZBRf9u>

IQA Tips

Just trying it out? IQA will not be created if you don't save it.

If you didn't create it, it is probably being used somewhere - make a copy if not sure.

Experimenting/testing? Make your own folder.

If you break it you can use 'Versions' menu to restore old version.

Start simple and verify your results are correct particularly when adding new sources.

ProTip: open a new IQA to browse Business Objects, just don't save.

Ad Hoc Queries

iMIS Desktop Query Tool

iMIS Ad Hoc Queries

Available in iMIS Desktop only

Used to control/determine which records show in 'Results' tab when searching for member records

Can be used for Informz subscriber/target lists

Shared with all iMIS users

Removed around V20.2.25.3071 - 09/15/2015

***** Not used for public or staff web site, doesn't use Business Objects *****

Ad Hoc Structure

Ad Hoc gets data from database directly:

- Tables only (usually one at a time)

Uses:

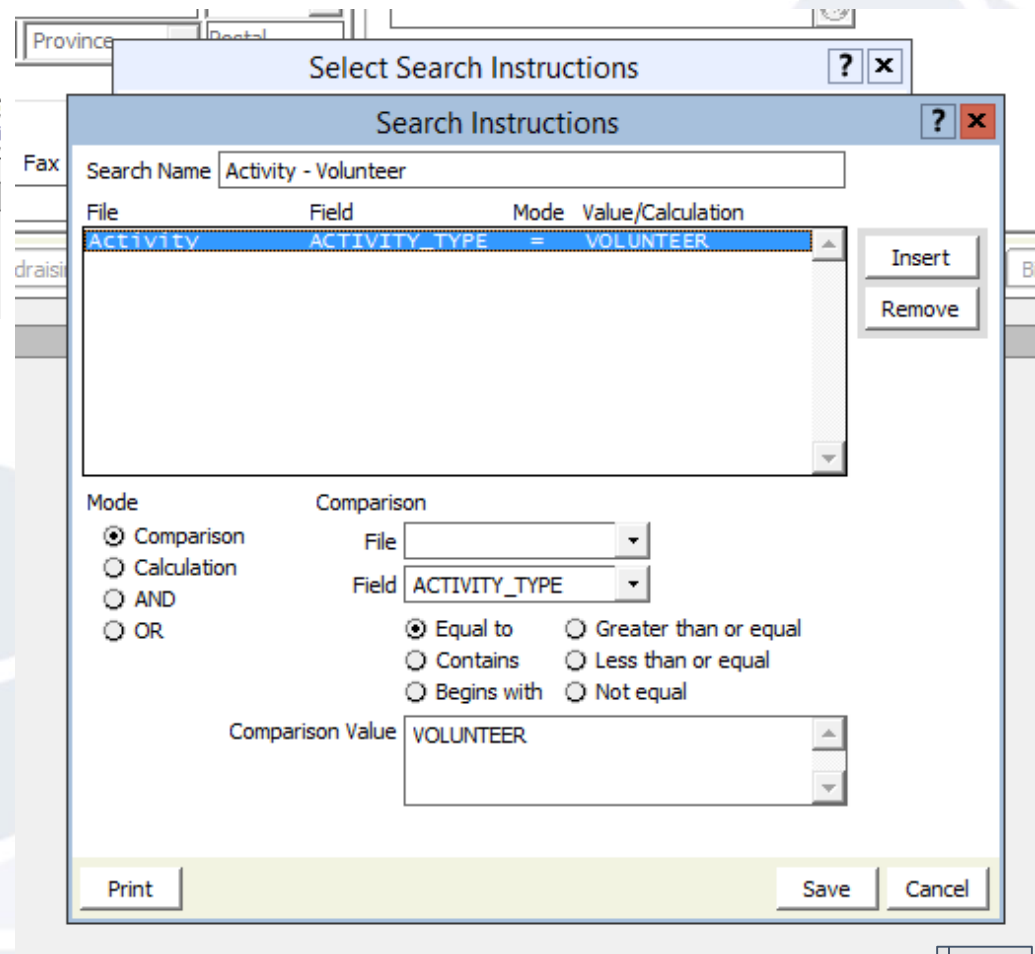
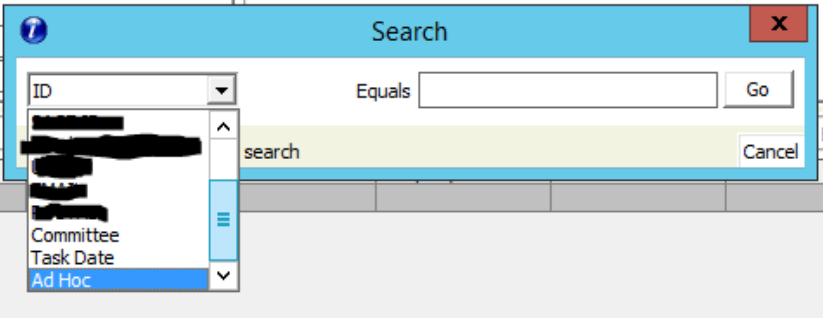
File (actual table name in database)

Field (field/column in table)

Mode (Compare, AND, OR)

Value (for comparison against field)

Desktop 'Find' drop down



Business Objects

iMIS Business Objects

Business Objects

- Used by IQAs as ‘Source(s)’
- One or more per IQA (no BO , no IQA)
- Within IQA, BOs are joined (SQL join) on a field (column) that is common to both BOs.
 - Member ID - is most common field to use in join
 - Missing or incorrect join will give unexpected results (1000’s, none, or ‘missing members’ in IQA results)
- Value List query (IQA) can be used to add ‘Drop down’ to IQA filter
 - Example: CsContact BO has Value List for ‘Chapter’ and ‘Status’ fields

Common Business Objects

CsContact (NetContact is similar, uses .NET contact ID field)

- Stores names and certain demographic information of company and individual contacts maintained within iMIS.

CsEvent

- Stores data related to events such as conferences, seminars, meetings, and fundraising events.

CsEventHistory

- Stores event registration history for closed events.

CsOrders

- Business Object that maintains summary and header data related to orders processed through either the simple or full order entry module

CsDuesHistory

- Contains cash-based dues and subscription payment history.



Custom Business Objects

- Can create several Custom BOs specific to your organization a.k.a. 'YourOrg'
- Recommendation is to put 'YourOrg_' at front of any custom BOs created
- Makes it easy to search for 'YourOrg' in Business Object Designer
- Preserves BO during an upgrade - will not be overwritten, but may need to be modified

Business Objects from UD Tables

- Settings
- About iMIS
- Organization
- Contacts
- Communities
- Commerce
- RiSE
- Language translation
- Utilities
- User defined tables**
- Update iMIS
- Package installer
- Advanced email

Auto-Generate Business Objects from User-Defined Tables

Build All

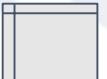
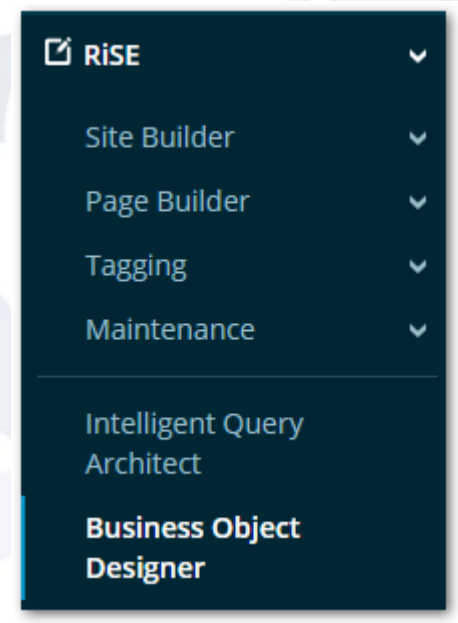
Build Results

CsBackground Successfully built, compiled and published.
CsCommunication Successfully built, compiled and published.
CsEducation Successfully built, compiled and published.
CsInformz_Mailings Successfully built, compiled and published.
CsInformz_Surveys Successfully built, compiled and published.
CsName_CEU Successfully built, compiled and published.
CsName_Demo Successfully built, compiled and published.
CsName_FRProfile Successfully built, compiled and published.
CsName_JoinOnline Successfully built, compiled and published.
CsName_Lookup Successfully built, compiled and published.
CsName_TabTest Successfully built, compiled and published.
CsName_Unlock Successfully built, compiled and published.
CsName_Volunteer Successfully built, compiled and published.
CsOrganization_Demo Successfully built, compiled and published.
CsSurvey Successfully built, compiled and published.

Business Object Creation

RiSE > Business Object Designer New > Business Object Definition

- Definition
 - Name - must be unique, start with 'YourOrg_'
 - Description (optional)
- Database
 - Tables > Add (to show all Tables and Views)
 - Available > Used Columns
 - Filters and Joins optional
- Properties
 - Value Lists (turns field into a dropdown list)
- Save and Publish



Tips, Tricks...

Do's and Dont's

A few tips/hints on IQA joining

ID - Member ID

- CO_ID - Company ID that member is linked to
- BT_ID - Bill to ID (who paid)
- ST_ID - Sold to ID (who received item)

CsOrders (CsYourOrg_Orders) - who purchased and order total
(link by 'Order Number' to CsOrderLines)

CsOrderLines (CsYourOrg_Order_Lines) - what was purchased,
price per item, one line per item

Modifying a UD Table?

If you change a UD table in desktop Customizer, watch for these issues...

New column(s) not appearing.

IQA stops working.

Errors on IQAs that worked before.

Choices not showing in dropdown.

Have columns added or removed?

- Make sure you modify and republish BOs that use that table.
- New columns will not appear in BO or IQA unless you add them.
- Update Value List or Query in BO.

Do's and Don'ts

Modify BO or IQA at random to see what happens.

Make a lot of changes without testing or verifying each change actually works.

Spit into the wind.

Use clear, simple names for IQAs and BOs. Put in a description.

Use folders (example: department name or function) to organize IQAs.

ProTip: an IQA with parameters can save you dev. time.

Online Assistance

Shortcut direct to IQA help online:

IQA Help
<https://goo.gl/WSYfPZ>

IQA Tutorials
<https://goo.gl/rW5YZk>

<http://help.imis.com>

- Select iMIS version or use iMIS20-300

Search for:

- IQA
- Business Objects
- Query

Questions?
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