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CONFIGURABLE JOINS: BASES, JOINS AND SUBQUERIES

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See table card for Wi-Fi Instructions

CONFIGURABLE JOINS: BASES, JOINS AND SUBQUERIES

Let's go on a journey through joins—starting at the base

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Fundamentals

Slate is a relational database.

- ▶ There are 200+ tables in Slate!

- ▶ Available Resources

  - ‣ Configurable Joins Base Explorer

  - ‣ Knowledge Base:

    - ‣ Search "Queries"

    - ‣ Commonly Used Person(Application)-Scoped Exports and Filters Suitcase

- ▶ RHB Academy Clean Slate

  - ‣ Pro Tip: Check out Slate Scholar!

- ▶ RHB Webinars:

  - ‣ Search "Configurable Join Fundamentals" on Rhb.com

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WHAT YOU SEE

WHAT SLATE SEES

SELECT
exports
FROM
table base
JOIN
other tables
WHERE
filters
ORDER BY
sorts

Base Categories

Quick Query   ✕

Type   Configurable Joins   ⌄

Category   ✓ Records
                  Related
Base   System
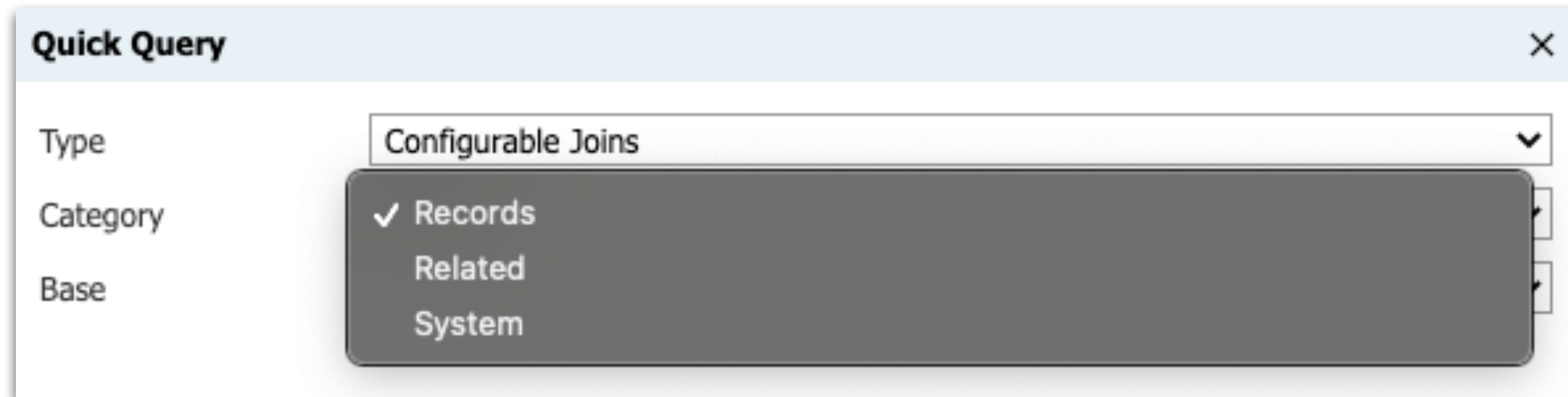
▶ **Records** Bases for parent records
  Applications, Persons, Dataset Records

▶ **Related** Bases that relate to parent records
  Schools, Tests, Addresses, Devices, Jobs

▶ **System** Bases for system tables
  Bins, Periods, Rounds, Decisions

Join Types

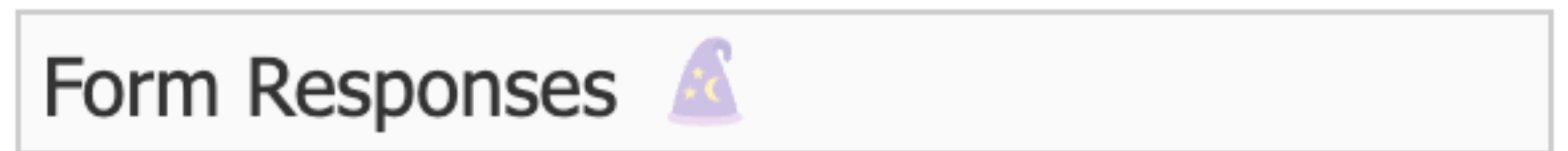### ONE-TO-ONE

Each Application can only have one Person.

Person

ONE-TO-MANY

Each Application can have many Materials - it gets the **Multiple** symbol.

Materials

ONE-TO-MULTIPLE OPTIONS

Each Application can have many Form Responses across many Forms. This is a magic join with **multiple options** inside it - it gets a magic hat symbol.

Form Responses

Important Concepts

- ▶ Table Ranking

- ▶ In / Not In

- ▶ Exists / Not Exists

- ▶ Confirmed / Released / Received

Configurable Joins Base Explorer

Category

- Records = primary identities that represent key business segments (e.g., persons, applications, and companies)
- Related = secondary objects that are often used in the context of Records (e.g., schools, test scores, and gifts)
- System = tertiary data points that are configurations of your Slate instance (e.g., fields, prompts, and materials)

Join Type

- Multiple = joins for one-to-many relationships between two bases where rankings are not predefined.

    - In subquery filters and exports, these joins provide aggregate data about the many.
    - In subquery joins on the query itself, these joins require a sort to indicate which related row is needed.

Category   Records ▼

Base   Person ▼

Table Results   Diagram

Join Name	Joins To	Join Type
Address by Rank Overall	Address	
Address by Type, Rank	Address	
Addresses	Address	multiple
Application by Rank	Application	
Application by Rank Submitted	Application	
Applications	Application	multiple
Course by School Level of Study, Course Rank	Course	
Courses	Course	multiple
Device by Type, Rank	Device	
Devices	Device	multiple
Duplicate Person Records (Duplicate Record)	Duplicate Records (Persons)	multiple
Duplicate Person Records (Main Record)	Duplicate Records (Persons)	multiple

Learning the database

Practice Queries

- ▶ Approaches
  - ‣ Build, Test, Review, Edit
  - ‣ Try different Bases
    - ‣ Try different exports

Care for Office

Custom Database Lookups

- ▶ Key config areas: activate CJ lookups;

  revisit user permissions to control

  access to bases

Care for Office

Care for Office

Benefits

▶ Only and Exactly what every user needs to search on

▶ Full customization of what is seen about any record

▶ Ability to leverage views (shared and personal) to further customize what is seen

Care for Team

Shared / Personal Views

- ▶ **Key config areas**: User Permissions: Edit Shared Views

- ▶ Appear in 80+ locations across Slate

- ▶ Benefits

  - ‣ Enhanced visibility into data

  - ‣ Ability to create standard 'views', while allowing individuals to establish custom views that suit needs best

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Database

Type

Access Request
API
API Endpoint
Concierge
Content Block Keys
Content Blocks
Decision Letters
Deliver Mailings
Entities
Fields
Files
Flow
Flow Logs
Form/Event/Scheduler: Form
Form/Event/Scheduler: Event
Form/Event/Scheduler: Event Template
Form/Event/Scheduler: Scheduler
Form/Event/Scheduler: Scheduler Template
Integration Center
Payment History
Portal
Portal: Express
Project Task Notes

Project Task Notes: Task Pane
Project Tasks
Projects
Prompt Keys
Prompts
Queries: Queries
Queries: Dashboards
Queries: Query Libraries
Release Decisions: Confirm
Release Decisions: Assign Letters
Release Decisions: Release
Release Decisions: Queued for Release
Release Decisions: Recently Released
Reports
Retention Policy Group
Rules
Rules: Form Submission
Rules: Workflow
Security: Custom Permissions
Security: Custom Roles
Security: Realms
Security: Users: Active Users
Security: Users: Inactive Users
Security: Users: Dormant Users
Sources
Translation Codes
Translation Keys
Voyager

Lookup

Type

Alumni Outreach Volunteers
Application
Companies and Foundations
Funds
Organization Contacts
Organizations
Person
Programs
Recruitment Territory
Tour Guides

Record

Type

Address
Contact
Courses: Courses
Giving: Gifts
Giving: Pledges
Giving: Planned Giving
Giving: Matching Gifts
Interests: Interests
Jobs
Matching Gift Policies
Materials: Current Record
Materials: Related Record
Opportunities: Current Record
Opportunities: Related Record
Relationships
Research Sources
Schools
Scores
Sports

Care for Self

Query Libraries

- ▶ **Key config areas**: none, but Libraries must be shared

- ▶ Benefits

  - ▸ Consistent Query / Report results

  - ▸ Ability to provide newer and less-tech-oriented users with commonly used data points

  - ▸ Create a wealth of drag-and-drop Exports / Filters that contain complex logic

  - ▸ Ease transition from legacy bases to modern CJ bases

Care for Self

Query Libraries

- ▶ Start with Suitcases from Technolutions via Knowledge Base

- ▶ Build office-centric 'most used items' Library

  - ‣ Entity Joins, Related Dates Record Joins

  - ‣ Items that require multiple Joins, such as Lookup Period or Source Format

Guided Activity

Let's build a shared Organization Lookup view.

- ▶ Go to Record Lookup

- ▶ Click on the Views Icon > Create View

  - ‣ Add desired Exports to use as a default view

  - ‣ Mark the view as the default view

- ▶ Enjoy your new default view

Independent Activity

Stretch your skills

▶ Revise the shared Person or Application Lookup view

Transition to CJs

▶ Transition

▶ Dependent

   ‣ Workflows

   ‣ Entities

▶ Independent

   ‣ Rules

   ‣ Application logic

Report Group Exports

Folder and User
Marketing - Alex
No Folder - Ken
No Folder - RHBexternal
RHB Academy - Erin
RHB Academy - Joshua
Summit 2022 - Erin
Summit 2022 - Megan
Summit 2023 - Erin
System - Abigail
System - Megan
Templates - Alisa
Test - Brian

Group By

Exports   Export   Join

My Custom Export

Output   Concatenate ∨

Row Separator   \n = New Line; \t = Tab; \\ = Escaped Backslash

Row Offset   1   Row Limit

Export Separator   -

Exports   Export

Message Mailing Folder

User First Name

Filters   Filter   NOT   (OR   )   Join

Join   Message Mailing

Join   Message Mailing / User

Report Groups "Sorts"

Month Sent
01 - January
02 - February
03 - March
04 - April
05 - May
06 - June
07 - July
08 - August
09 - September
10 - October
11 - November
12 - December

Group By

Exports   [Export] [⚹] [T]   [◑ Joi]

Delivered Date [⚹]

Output   Concatenate ⌄

Row Separator   [   ] \n = New Line; \t = Tab; \\ = Escaped Backslash

Row Offset   [1]   Row Limit   [   ]

Export Separator   [-]

Exports   [Export] [⚹] [T]

Message Delivered Date - Format MM

Message Delivered Date - Format MMMM

Rule Filters

Application Status - Awaiting Materials (Reference - 1)

Application Status - Awaiting Materials (Reference - 2)

Application Status - Awaiting Materials (Reference - 3)

Filters

Matching Rows	6,734
Filters	▼ Filter ⊷ NOT (OR) ◐

Has Not Received Required Count ⊷

Action

No Action Rule   ☐ Do nothing and skip processing of other lower-p

Status   Awaiting Materials

Save

Edit Part ✕

Status	Active ▾
Name	Has Not Received Required Count
Source	Subquery Filter
Type	Dependent subquery ▾
Aggregate	Comparison ▾
Field 1	Received ▾
Operator	< ▾
Field 2	Required ▾
Exports	⊞ Export ⊷ [T]

Received ⊷

Required ⊷

Action

No Action Rule	☐ Do nothing and skip processing of
Action	Replace Values from Formula
Exports	⊞ Export 🔤
	roundkey
	ug_type
Formula	@roundkey + '_' +@ug_type

Action

No Action Rule	☐ Do nothing
Action	Replace Values
Exports	🗐 Export
	header
Formula	@header

Save

Edit Part ✕

Status	Active ⌄
Name	header
Source	Subquery Export
Type	Dependent subquery ⌄
Output	Concatenate ⌄
Row Separator	[ ] \n = New Line; \t = Tab; \\ = Escaped Backslash
Row Offset	1 Row Limit [ ]
Export Separator	-
Exports	🗐 Export

Lookup Round Key

Application UG Student Type (App)

Action

No Action Rule	☐ Do nothing and skip pro
Field	Owner
Action	Replace Values from Form
Exports	▦ Export ⁌ 🆃 ◖

Join Address by Rank Ov

owner ⁌

Formula | @owner

Filters   ▼ Filter   ⁌   NOT   (OR   )   ◉ Join

Sorts   ⬍ Sort   ⁌

Groups   ⛁ Group

Aggregate   [▾]

Export Value   [Translation Export 2 Value ▾] Key: [territories_owners ▾]

Format Type   [Default ▾]

Null Value   [   ]

[**Save**]   [Delete]   [Cancel]

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Filters

Matching Rows	342

Filters   [🔻 Filter] [NOT] [(] [OR] [)] [⚙]

Material Count by Type (with dates)   Number = 1; Material Type IN Recommendation Letter; Start Date (optional) = ; End Date (optional) =

Action

No Action Rule   ☐ Do nothing and skip processing of other lower-priority rules in this Exclusivity Group when filter criteria are met.

Field	Number of LORs Received
Action	Replace Values
Value	1

Insert Record in Application Logic   ✕

Status	Active ▾
Folder	▾
Type	Submission Requirement ▾
Section	▾
Name	Application for this program already submitted for this term
Warning	Hard Fail ▾
Group	▾
Base	Configurable Joins - Application ▾

Filters

Matching Rows	62
Filters	▼ Filter ⊷ NOT (OR) ◑ Join ⊷ ⚙

Exists: Another Application - Same Program, Same Term ⊷

Different counts for different programs? Translate it!

Key Takeaways

- We now understand when and where to Join.

- We now have 'database caring' tools for creating customized user experiences.

- We now have 'database boosting' tools that extend Join functionality beyond queries.

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THANK YOU