



Data Quality Helper

Admin Guide

Install Instructions

We highly recommend testing in a sandbox environment prior to installing into a production environment. This will ensure that unwanted changes do not negatively affect your organization.

[Install on AppExchange](#)

Data Quality Helper Rule Types

1. Once Data Quality Helper has been installed, open the 'Data Quality Helper Configuration' tab. (If not visible you may assign the 'Data Quality Helper All Access' permission set to your user.)
2. Select the setting type for the setting you would like to configure.

The screenshot shows the Data Quality Helper configuration interface. At the top is the logo and the text "Data Quality Helper". Below this is a prompt: "Click a rule type below to continue with configuration." There are four options, each with an icon and a description:

- Validation Rule Configuration** (Warning icon): Provide customized warning messages or prevent save of records when invalid data is entered. These warning messages are similar to validation rules but provide additional flexibility such as allowing the user to save after the warning is displayed, customized warning background colors, merge field display in the warning message, and custom formatting.
- Duplicate Rule Configuration** (Merge icon): Customize how duplicate records are handled when a user creates or updates records. These rules will provide users with more control when a merge occurs, allowing users to ensure that the correct field values are populated during the merge.
- Data Cleanup Rule Configuration** (Trash icon): Cleanup old, unused, or unneeded records to free up storage space and reduce how much your organization spends on Salesforce. These rules allow you to define what types of records should automatically be deleted and at what frequency.
- Dynamic Form Configuration** (Form icon): Customize when particular fields and sections should be displayed when viewing, editing, and creating records.

- a. Data Validation Configuration — Configure validation rules that are similar to the standard Salesforce validation rules, but also allow users to bypass the validation warning message for edge cases where invalid looking data is actually correct.
- b. Duplicate Rule Configuration — Configure duplicate rules that allow users to select what record a duplicate should be merged into as well as which fields need to be updated during the merge process.
- c. Data Cleanup Rule Configuration — Configure cleanup rules that create jobs to manage the data deletion strategy for your Salesforce org.
- d. Dynamic Form Configuration — Configure when fields should be displayed to a user when they view, edit, and create records.

Data Quality Helper Rule Creation

Data validation configuration

1. Navigate to the 'Data Quality Helper Configuration' tab.
2. Click on the 'Data Validation Configuration' option.
3. Click the 'New Rule' button.
 - a. Populate the name of the rule (something to make the setting easily identifiable).
 - b. Populate the description field with a description of what the new rule will achieve.
 - c. Select the object that the rule is being created for.
 - d. Check the 'Active' checkbox if you would like the rule to be active on creation.
 - e. If you would like the rule to be a soft validation rule (that will allow users to save a record regardless of the warning message) check the 'Allow Save After Displaying Warning' checkbox. If you would like to completely prevent the save of a record select the 'Prevent Save After Displaying Warning' checkbox.
 - f. Select when you would like the rule to run. If 'Before Save' is selected, the rule will run prior to any automation taking place (ex: triggers, workflows, etc). If 'After Save' is selected, all automation will take place before checking for the error.
 - g. Populate the custom warning message that should be displayed when the validation rule is encountered during the creation/update of a record.
 - h. Select the background color for the warning message that will be displayed to users.
 - i. Optional Configuration (click to expand)
 - The 'Track Records That Encounter Warning' setting will log when a record encounters a Data Quality Helper warning message when enabled.
 - The 'Allow Users To Ignore Warning' setting will allow users to prevent Data Quality Helper warning messages from displaying when they no longer want to see them while viewing/editing a record.
 - The 'Field To Highlight' setting allows the admin to specify a field that should be highlighted if a validation rule has been encountered.

4. Once the input information looks correct, click the 'Next' button to advance to the criterion creation.
 - a. Select the object that you would like to create a validation setting criterion for. By default, it will be set to the object the rule is being created for; however, you may traverse to a parent or child object, or enable/disable rules for specific users by selecting the 'Current User' option.
 - b. Select the field for the selected object you would like to validate.
 - i. If the object selected in step a is not a parent object, child object, or a current user filter, you have the option to only evaluate the criterion being created if the value for the field you select in this step has a change of value.
 - c. Select the comparison type you would like to use. You may either compare the selected field's value to another field's value by selecting the 'Field Comparison' option, or you may compare the selected field's value to a defined value by selecting the 'Value Comparison' option.
 - i. If the validation field is numeric and the 'Field Comparison' type is selected, you may perform basic calculations on the comparison field when the 'Use Field In Calculation' checkbox is selected.
 - d. Select the operator you would like to use to validate the data.
 - e. Populate a value or select a field that the field should be compared to.
 - i. If the field being evaluated is a text field you will have the ability to check for exact case-sensitivity using the 'Case-Sensitive' checkbox below the input field.
 - f. Once the defined criterion looks correct, click the 'Add Criteria' button.
 - g. Repeat the above steps a-e until all the validation criteria is completely defined.
 - h. Update the criteria logic if needed.
 - i. Click the 'Save' button to create the new Data Quality Helper Validation Rule.

Duplicate rule configuration

1. Navigate to the 'Data Quality Helper Configuration' tab.
2. Click on the 'Duplicate Rule Configuration' option.
3. Click the 'New Rule' button.
 - a. Populate the name of the rule (something to make the setting easily identifiable).
 - b. Populate the description field with a description of what the new rule will achieve.
 - c. Select the object that the rule is being created for.
 - d. Check the 'Active' checkbox if you would like the rule to be active on creation.
 - e. Select the option of how the duplicate rule should be handled.
 - 'Automatically Merge' will merge the closest matching duplicate record when found.

- 'Manually Merge' will allow users to select what duplicate to merge with as well as allow them to select what fields should be updated during the merge.
 - f. Select when you would like the rule to run. If 'Before Save' is selected, the rule will run prior to any automation taking place (ex: triggers, workflows, etc). If 'After Save' is selected, all automation will take place before checking for the error.
 - g. Optional Configuration (click to expand)
 - The 'Track Records That Encounter Warning' setting will log when a record has duplicate records when enabled.
 - The 'Track Records Merged' setting allows users to restore recently merged records. Please Note: Only records in the Salesforce recycling bin can be restored. Once records leave the Salesforce recycling bin, they may no longer be restored by Data Quality Helper.
 - The 'Allow Users To Ignore Warning' setting will allow users to remove duplicate records from the list of duplicates when viewing/editing a record.
- 4. Once the input information looks correct, click the 'Next' button to advance to the criterion creation.
 - a. Select the object that you would like to check for duplicates.
 - b. Select the operator that you would like to use when checking for duplicates.
 - i. If you select the 'Similarity Percentage' option:
 1. Use the slider to define how similar the field values should be
 2. Select the fields that should be compared
 - ii. If you select any other option:
 1. Select the two fields to compare on the records.
 - c. Once the defined criterion looks correct click the 'Add Criteria' button.
 - d. Repeat the above steps a-c until all the validation criteria is completely defined.
 - e. Update the criteria logic if needed.
 - f. Click the 'Save' button to create the new Data Quality Helper Duplicate Rule.

Data cleanup rule configuration

1. Define Job Object & Job-Specific Settings
 - a. **Name:** Make sure to give your Data Cleanup Rule a meaningful name so it is easy to determine the original purpose down the line.
 - b. **Object:** The object to clean up.
 - c. **Deletion Order:** Optional. This setting allows you to control the order in which your Data Cleanup Rules run, in case you need one job to run before other job(s).
 - d. **Notes:** You can optionally include some additional notes regarding the setting here.
 - e. **Hard Delete Records:** Optionally, check this setting to ensure that any records deleted by Data Cleanup Rules do NOT go to the Recycle Bin. It is best practice to leave this option unchecked for an added layer of safety when running Data

Cleanup Rules, however this option may be selected if the records being recycled are records of lower importance that do not matter as much as other possible contents of your recycle bin.

- f. **(Optional) Setting Batch Scope:** The number of records that are deleted by Data Cleanup Rules per batch. This value may be automatically adjusted by Data Quality Helper if limits are encountered during a batch run. Generally speaking, this field is maintained by Data Quality Helper and does not usually need to be changed.
 - g. **(Optional) Cascade Delete Objects to Exclude:** When a Master-Detail relationship exists between two objects, if a Master record is deleted without first deleting Detail records, the Detail records will be hard deleted and unrecoverable upon Master record deletion. Data Quality Helper mitigates this situation for all Detail records of the selected Object by default (to ensure that records can be backed up or sent to the recycle bin). If you would prefer Detail records of a given cascade delete object be hard deleted with no special handling when a Master (selected object) record is deleted, specify the name of the object in this field.
 - h. **Lookup Objects With Restrict Delete:** If a selected object has any child Lookup relationships with Restrict Delete enabled, they will be listed at the bottom of the first Data Cleanup Rule creation screen. Checking the checkbox next to any of these object(s) listed means that the child object record(s) related to the parent object will be deleted by the Data Cleanup Rule (and backed up, if backups are enabled) before running the main Data Cleanup Rule. If any Restrict Delete objects exist that are not selected for deletion prior to running the parent deletion job, errors may occur that block parent records from being deleted. If you need any assistance determining whether this setting should be selected, please contact support@passagetech.com.
2. Define Filter Criteria
- a. You can create one or more filter criteria for each Data Cleanup Rule. It is highly recommended to ensure all filter criteria are created and validated before activating your new Data Cleanup Rule.
 - i. **Field:** The field you wish to filter on.
 - ii. **Logic:** The logical operator you wish to use.
 - iii. **Condition:** The value for comparison. Date fields will have SOQL date filters available for selection and Picklist values will display in a select list if a Picklist field was selected.
 - **Maximum Number of Records To Recycle:**
 - This is the maximum number of records Data Cleanup Rules will delete in a single run.
 - The default value (20000) is the maximum number of records that can be restored from the Recycle Bin at any time in most orgs.
 - Please note that Data Quality Helper Free Edition is limited to deleting a total of 20,000 records per month across all jobs.

- If you would like to configure Data Quality Helper to delete more than 20,000 records at a time, we recommend usage of the built-in Backup functionality as a safeguard - more details regarding the backup functionality can be found in the "Creating a Data Cleanup Rule" section.
- Alert Threshold (in Percent):
 - When Data Quality Helper detects that your environment's storage utilization has reached the defined alert threshold, Data Quality Helper will send a notification to all email addresses specified in the "Notification Email Address(es)" field informing that the storage usage threshold has been reached.
- Notification Email Address(es):
 - Email addresses that should receive storage usage notifications.
- Force Record Preview For New Data Cleanup Rules:
 - It is recommended that this setting remain "checked" in most cases.
 - With this setting enabled, when a new Data Cleanup Rule is being created, a record preview will be displayed before activating the setting.
 - Viewing the record(s) that match the query that will be run by the Data Cleanup Rule is always recommended before initial run to ensure that all filter criteria are correct and no data that is not intended for deletion gets deleted.
 - You can also view the record preview at any time by hitting the "Preview Records" button in the Detail pane for any Data Cleanup Rule.
- Salesforce Data Storage is Purchased at a Discount:
 - Data Quality Helper calculates all storage savings based on the standard Salesforce storage costs.
 - If your organization has purchased extra storage at a discounted rate, please check this setting and enter the actual cost for your environment in the "Salesforce Data Storage Cost (Per 500MB/year)" field to ensure that all savings displays are as accurate as possible.
- Track Monthly Data and File Storage:
 - With this setting checked, snapshots of data and file storage will be generated for each month.
 - A graphical display of how these values change over time can be found on the Storage Usage Analytics tab.
 - Please note that two records will be created and stored in your environment for each month tracked.
- Track Monthly Object Storage Usage:
 - With this setting checked, snapshots of storage usage will be generated for each top consuming object in your environment every month.
 - A graphical display of various analytics related to these values can be found on the Storage Usage Analytics tab.
 - Please note that records will be created and stored in your environment for each month and object tracked (uses data storage).
- Change Run Mode:
 - Data Cleanup Rules currently has three different run modes, "Manual Run Only", "Run on a Defined Schedule", and "Run after Salesforce Data Exports".

- Please note that even if an automated option is selected, you can still manually run Data Cleanup Rule(s) at any time by selecting the "Run" button in the upper right corner of the Data Cleanup Rules page.
- Manual Run Only:
 - Data Cleanup Rules will only run when the "Run" button in the top right of the page is clicked and Data Cleanup Rule(s) are selected to be run.
 - No deletions will occur automatically when "Manual Run Only" is selected.
- Run After Salesforce Data Exports:
 - Data Cleanup Rules will monitor for the Salesforce data export job to be completed.
 - Once the Salesforce data export has completed, Data Quality Helper will run all active Data Cleanup Rule(s).
- Run on a Defined Schedule:
 - Allows you to schedule when you would like Data Cleanup Rules to run.
 - At the selected time Data Quality Helper will run all active Data Cleanup Rule(s).
- Best Practices:
 - Back up your data:
 - We strongly recommend having a backup solution in place before you begin deleting data with Data Cleanup Rules, such as the Salesforce weekly data export or a purpose-made backup solution.
 - Don't activate Data Cleanup Rules without an accurate filter:
 - We highly recommend defining your Data Cleanup Rule and its associated criteria, leaving the job inactive, and checking the Record Preview closely before activating the job.
 - If a job is activated before the filter criteria are fully defined and validated, there is a chance that data could be erroneously deleted (if the Data Cleanup Rule is set to run on a schedule, for example).
 - Leave "Hard Delete Records" unchecked. If you leave this option unchecked, records will be recoverable from the Recycle Bin if it is necessary.

Dynamic form configuration

1. Navigate to the 'Data Quality Helper Configuration' tab.
2. Click on the 'Dynamic Form Configuration' option.
3. Click the 'New Rule' button.
 - a. Populate the name of the Dynamic Form.
 - b. Select the object the Dynamic Form should be created for.
 - c. Keep the Dynamic Form active or deactivate it if desired.
 - d. Once the desired configuration is defined, click the 'Next' button to define the Dynamic Form criteria.
 - e. Select one or multiple fields you would like to show/hide based on defined criteria.

- f. In the table below the field selection picklist, you may define your first criterion.
 - i. Select the criterion field
 - ii. Select the criterion operator
 - iii. Select the criterion value
- g. If additional criterion should be defined, you may click the '+ Add Criterion' button on the bottom left of the criterion table. Please Note: The add criterion button will be disabled if the criteria field and operator have not been selected for your first criterion.
- h. Repeat steps f-g for as many criterion as needed.
- i. Adjust the criteria logic above the criterion table if needed.
- j. Once the desired criteria has been defined, click the 'Save Dynamic Field Criteria' button on the bottom right of the criterion table. Please Note: The 'Save Dynamic Field Criteria' button will be disabled if any of the defined criteria have blank criteria fields or operators.
- k. If additional dynamic fields should be defined click the '+ Dynamic Fields' button.
 - i. Repeat steps e-k for as many dynamic fields as desired.

Post-Setting Configuration

Enable functionality for edit and creation of records

Once the desired Data Quality Helper settings have been created, the default buttons for the settings' objects will need to be updated to leverage the Data Quality Helper lightning component. **Please Note:** The DQH_Upsert Lightning Web Component does not support the Task and Event objects.

1. Go into Setup (in the lightning experience)
2. Search for and select the 'Object Manager'
3. Select the object that you have created a setting for.
4. Select the 'Buttons, Links, and Action' section.

5. Find the buttons you would like to override to leverage the Data Quality Helper functionality.

Buttons, Links, and Actions			Quick Find	New Action	New Button or Link
Contacts Tab	Tab	Standard page			
Delete	Delete	Standard page			
Edit	Edit	Standard page			
Get Survey Invitation	CreateSurveyInvitation	Standard page			
List	List	Standard page			
New	NewContact	Standard page			
Send Message	SendBulkMessageAction	Standard page			
Start Conversation	StartOutboundConversation	Standard page			

- If you would like to run the Data Quality Helper settings on creation of a record, select the dropdown menu to the right of the 'New' button and click 'Edit'.
 - If you would like to run the Data Quality Helper settings on edit of a record, select the dropdown menu to the right of the 'Edit' button and click 'Edit'.
6. Update both the 'Lightning Experience Override' and 'Mobile Override' sections to leverage the 'DQH:DQH_Upsert' Lightning Component. (see image below for an example)

Override Standard Button or Link Help for this Page ?

Edit

Overriding a standard button or link changes what happens when a user clicks on it. For example, instead of having a standard Salesforce page appear when a user clicks View, you can have the View button launch a custom s-control, Visualforce page, Lightning component, or Lightning page instead.

Overrides also apply to programmatic customizations of the same actions. For example, firing the View record event uses the same setting, and performs the same action, as the user clicking View for that record.

You can set different override behavior for Salesforce Classic, Lightning Experience, and mobile.

Override Properties Save Cancel

Label	Edit
Name	Edit
Default	Standard page
Salesforce Classic Override	<input checked="" type="radio"/> No override (use default) <small>i</small> <input type="radio"/> Visualforce page --None-- ▾
Lightning Experience Override	<input checked="" type="radio"/> Lightning component DQH:DQH_Upsert ▾ <input type="radio"/> Use the Salesforce Classic override
Mobile Override	<input checked="" type="radio"/> Lightning component DQH:DQH_Upsert ▾ <input type="radio"/> Use the Salesforce Classic override
Comment	<div style="border: 1px solid black; padding: 5px; min-height: 40px;"> When clicking the edit button for a record it will now check the record on update if it meets a defined Data Quality Helper rule. </div>

Save Cancel

- Repeat the above steps 3-6 for each object that a Data Quality Helper rule has been created for.

Enable functionality when viewing record detail pages

If you would like to display warning messages to users viewing the record detail page for a record that encounters Data Quality Helper validation/dupe warnings, you can follow the steps below to add the 'Data Quality Helper Record Detail Info' component to the lightning record page.

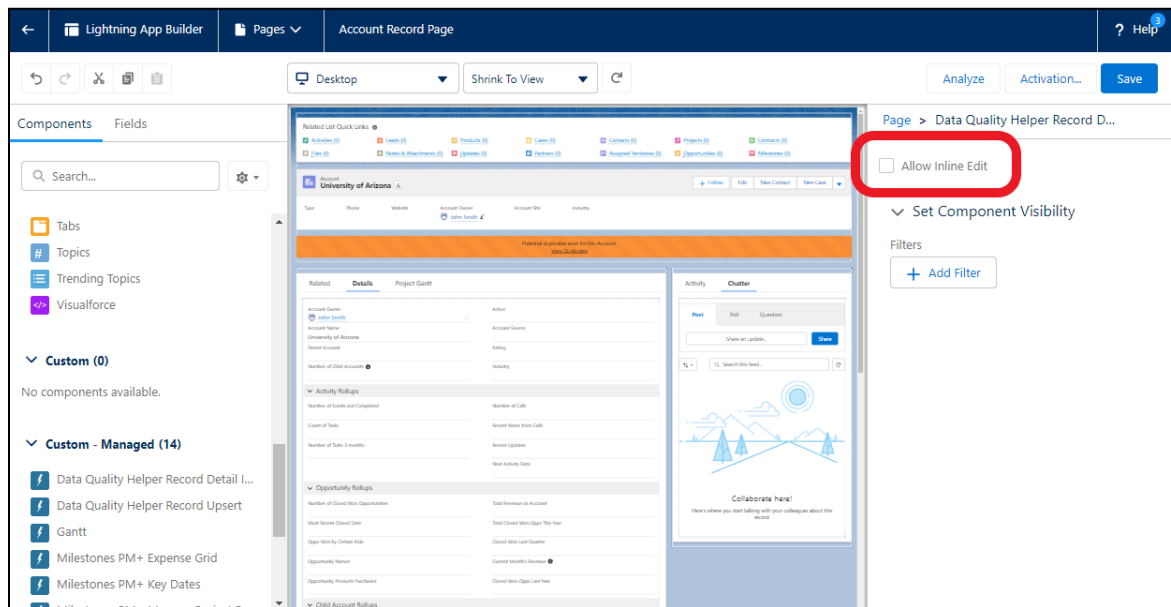
- Go into Setup (in the lightning experience).
- Search for and select the 'Object Manager'.
- Select the object that you have created a setting for.
- Select the 'Lightning Record Pages' section.
- Edit your existing lightning record page or add a new one.
 - If creating a new lightning record page, select what type of page, click 'Next', and populate the label for the layout and what object the layout belongs to, click 'Next', then select the page template you would like to use.
- Scroll down in the components section on the left hand side of the page to the 'Custom - Managed' component sub section.

7. Click and drag the 'Data Quality Helper Record Detail Info' custom component to where you would like it to display on your detail page.

The screenshot displays the Salesforce Lightning Builder interface. On the left, the 'Components' panel is visible, showing a list of available components. The component 'Data Quality Helper Record Detail Info' is highlighted with a red box. Below it, a tooltip shows the component's name and supported form factors: 'Data Quality Helper Record Detail Info Supported form factors: desktop'. The main workspace on the right shows a preview of an 'Opportunity' record detail page. The record is titled 'test' and includes fields for 'Account Name', 'Close Date' (3/21/2023), and 'Amount'. Below these fields, there are sections for 'Opportunity Owner' (Shawn Hepker), 'Private' (checkbox), 'Opportunity Name' (test), 'Account Name', 'Type', 'Lead Source', 'test', '- test', 'Quantity', 'test invocable sum', 'Test Quarter' (Q4 2022), 'test fiscal year' (2,018), 'test date check' (not null), and 'Number Test'.

8. If you would like to enable inline edit functionality, you may click the Data Quality Helper Record Detail Component once added to the page and check the 'Allow Inline Edit' checkbox in the component information section on the far right side. **Please Note:** If inline edit functionality is enabled, we suggest removing the standard record detail

component from the page. If not removed, the details will display twice.



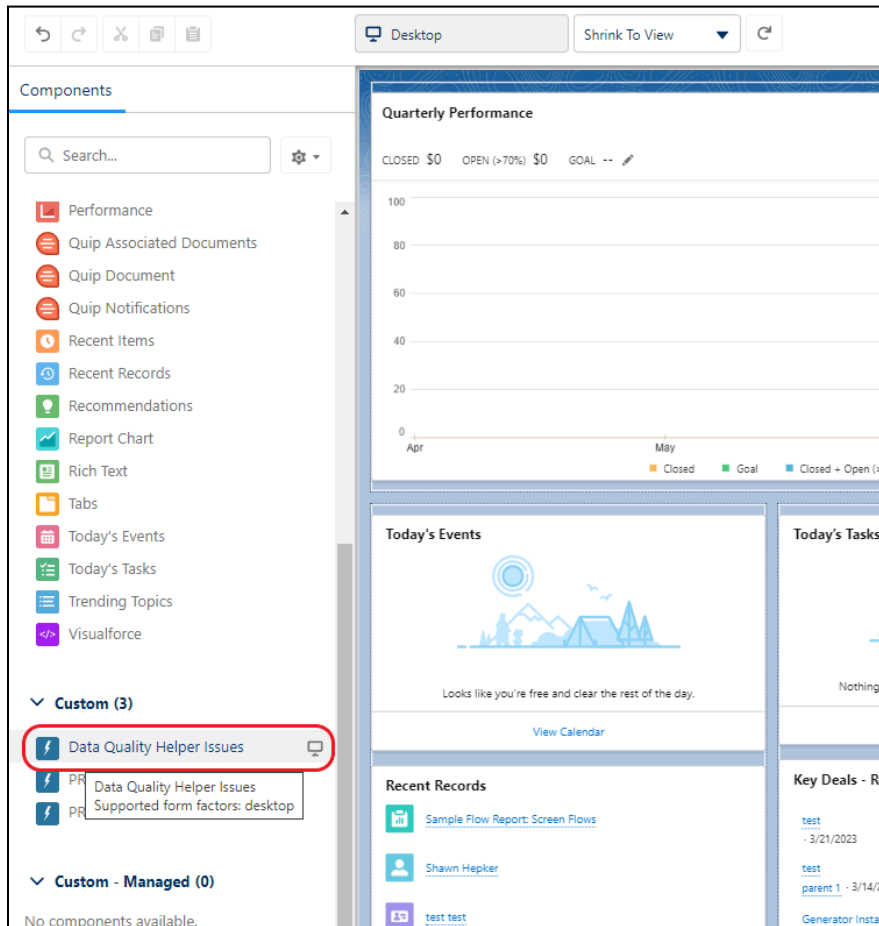
9. Once the page looks good, 'Save' and activate the lightning record page.

View All Data Quality Issues

If you would like for users to see multiple records that have encountered data quality issues, you may follow the steps below to add the 'Data Quality Helper Issues' component to the home page layout.

1. Go into Setup (in the lightning experience).
2. Search for and select Lightning App Builder.
3. Click 'Edit' next to the home page layout that you would like to modify. In most cases, it will be 'Home Page Default'.
4. Scroll down in the components section on the left hand side of the page to the 'Custom - Managed' component sub section.

5. Click and drag the 'Data Quality Helper Issues' custom component to where you would like it to display on the home page.



6. Once the page looks good, 'Save' and activate the home page.

Please Note: If you have just created a duplicate or validation rule, you may have to log issues for the created rule. To do this, go to the 'Data Quality Helper Configuration' tab, select the rule type for the recently created rule, find the rule in the list then click the dropdown menu item in the far right column, then click the 'Log Validation Issues' or 'Log Dupe Records' menu item.

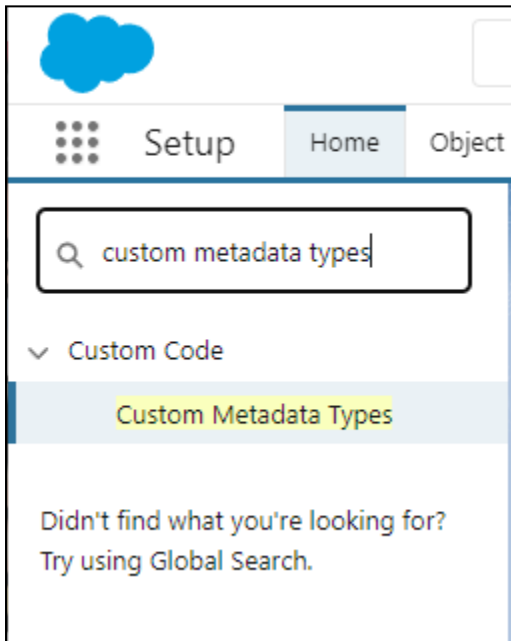
Deleting Unneeded Rules

If you have created a validation or duplicate rule that is no longer needed, you may follow the steps below to delete the unneeded rules.

1. Go to the 'Data Quality Helper Configuration' tab.
2. Select the 'Validation Rule Configuration' or 'Duplicate Rule Configuration' option based on the type of rule you would like to delete.
3. Click the drop down menu item in the far right column for the rule you would like to delete.
4. Click the 'Delete' menu item.

Alternative Deletion Method:

1. Go to Setup (in the lightning experience).
2. Search for and select 'Custom Metadata Types'.



3. Click 'Manage Records' next to the 'Data Quality Helper Setting' metadata type.

All Custom Metadata Types Help for this Page ?

Custom metadata types enable you to create your own setup objects whose records are metadata rather than data. These are typically used to define application configurations that need to be migrated from one environment to another, or packaged and installed.

Rather than building apps from data records in custom objects or custom settings, you can create custom metadata types and add metadata records, with all the manageability that comes with metadata: package, deploy, and upgrade. Querying custom metadata records doesn't count against SOQL limits.

New Custom Metadata Type

Action	Label	Namespace Prefix	Visibility	API Name	Record Size	Description
Del Manage Records	DAH Setting		Public	DAH_Setting__mdt	2219	
Del Manage Records	Data Quality Helper Criterion		Public	DQH_Criterion__mdt	1951	
Del Manage Records	Data Quality Helper Setting		Public	DQH_Setting__mdt	1751	
Del Manage Records	PRTZ Object Data		Public	PRTZ_Object_Data__mdt	406	
Del Manage Records	Rollup Helper Use Case Library		Public	PS_Use_Case_Library__mdt	1671	

4. Identify which rule should be deleted, then click on the label for the rule.

Data Quality Helper Settings

View: Settings [Edit](#) | [Create New View](#)

Action	Label ↑	Data Quality Helper Setting Name
Edit Del	Duplicate Accounts	Account3
Edit Del	Account Missing Billing Info	Account1
Edit Del	Account name length short	Account5
Edit Del	Account Number Wrong	Account6
Edit Del	Case escalated without reason	Case1
Edit Del	Closed Opp Without Product	Opportunity3
Edit Del	Contact with no contact info	Contact1
Edit Del	Invalid Opp Name	Opportunity1
Edit Del	Duplicate Opportunity	Opportunity2
Edit Del	Project Start Date Off	Project1
Edit Del	Rule To Delete	Account7
Edit Del	Task Relates To Closed Case	Task2

[Show me fe](#)

5. Delete all of the criteria in the 'Data Quality Helper Criteria' related list.

Data Quality Helper Setting

Data Quality Helper Setting Detail

[Edit](#) [Delete](#) [Clone](#)

Label	Rule To Delete
Data Quality Helper Setting Name	Account7
Label	Rule To Delete
Description	This is a rule that should be deleted.
Object	Account
Type	Data Validation Setting
Logic	1
Active	<input type="checkbox"/>
Soft Rule	<input checked="" type="checkbox"/>
Hard Rule	<input type="checkbox"/>
Custom Message	<p>test</p>
Created By	Shawn Hepker , 6/5/2023 12:52 PM

[Edit](#) [Delete](#) [Clone](#)

Data Quality Helper Criteria

Action	Label	Data Quality Helper Criterion Name
Edit Del	Account13	Account13

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6. Once all criteria are deleted, click the 'Delete' button for the rule you are viewing.

Data Quality Helper Setting

Data Quality Helper Setting Detail Edit **Delete** Clone

Label	Rule To Delete
Data Quality Helper Setting Name	Account7
Label	Rule To Delete
Description	This is a rule that should be deleted.
Object	Account
Type	Data Validation Setting
Logic	1
Active	<input type="checkbox"/>
Soft Rule	<input checked="" type="checkbox"/>
Hard Rule	<input type="checkbox"/>
Custom Message	<p>test</p>
Created By	<u>Shawn Hepker</u> , 6/5/2023 12:52 PM

Edit **Delete** Clone