



Administrative Guide for DataArchiva

Who should read this document: Your Salesforce Administrators (includes IT Admins, IT Managers)

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Table of Contents

Introduction	3
Who can use DataArchiva?	3
Preparation	3
Dashboard	4
Configuring Objects to Archive.	5
Objects to archive	5
Index Fields	6
Object Relationships	7
Configuration Status	9
Filter Criteria	9
Scheduling	11
Metadata reconciliation .	12
Delete Big object	13
Data Archive	13
Manual	14
Process builder	14
Scheduler	15
Viewing Archived Data	15
Create a new visual page	15
Modify page layout	16
Data Restore	18
Configuration	18
Restore	18
Search Archive	19
Audit	20
Setup Audit Trail	20

1. Introduction

DataArchiva is an archiving solution for Salesforce data that can help to reduce the storage space and improve application performance. This document addresses in detail on how to setup and configure DataArchiva application.

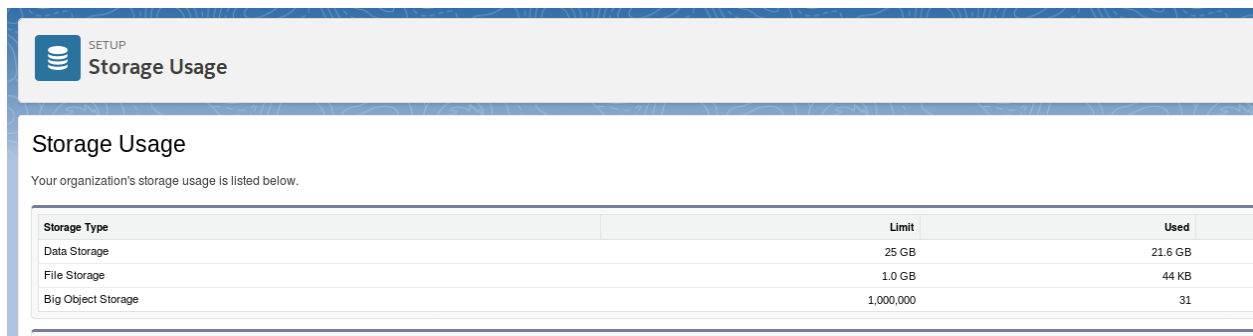
2. Who can use DataArchiva?

Primarily meant for Salesforce Administrator of your organization and also for regular users. An administrator can configure and schedule data archival on large volume of data. End users who have read and delete access to object record can also archive/restore at record level provided the end-user is assigned with required permissions.

3. Preparation

Before you begin with archiving, it is essential to understand your organization data usage and schema. To figure out the data usage, you need to login as an administrator and go to the setup page. From the setup, search for "Storage Usage" and click on the link.

This screen will provide details on storage usage based data, file and big objects.



SETUP Storage Usage		
Storage Usage		
Your organization's storage usage is listed below.		
Storage Type	Limit	Used
Data Storage	25 GB	21.6 GB
File Storage	1.0 GB	44 KB
Big Object Storage	1,000,000	31

Since DataArchiva is all about archiving data from data storage to Big object storage, you might also want to look for sufficient space in big object storage.

By default, Salesforce provides one million records of Big object for free and anything additional to this, has to be purchased from Salesforce. One million records of Big object can hold upto 2 GB of Salesforce data storage space. Hence, depending on the amount of data that has to be archived, an equivalent Big object storage space may be required.

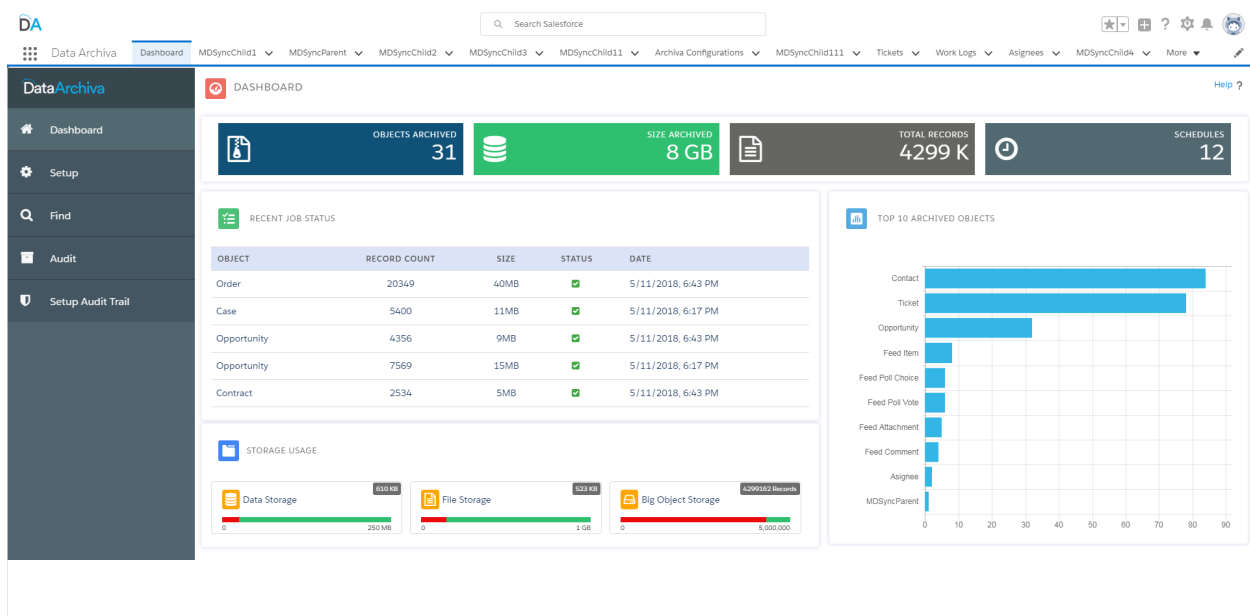
If you intend to save data storage cost, then look for data usage on the above screen of "Storage Usage" page where objects are listed based on data space it consumes sorted in descending order and it can be a standard or custom object. Those top data consuming objects can be considered for archiving.

After considering the list of objects to archive, it is also important to decide what amount of data has to be archived and how to much to retain as live data for business. Preferably, it is a good practice to consider unused or less used data to archive.

With this, you will need to identify list objects and amount of data to archive. Filter criteria can be applied based on date range or any other custom criteria.

4. Dashboard

The Dashboard gives a quick glance on data archival activities as shown in below screen.



- Storage usage summary.
 - Provides a graphical view on how much data has been consumed categorically from the available storage for file, data and Big objects.
- Recent job status of archive objects.
 - During the archival process, every activity runs as job and status of the same can be found in this list. The status can be "In-Progress", "Completed" or "Failed".
- Top ten archived objects.
 - Out of many objects that were configured for archiving, this list picks top ten based on the number of records archived from high to low.

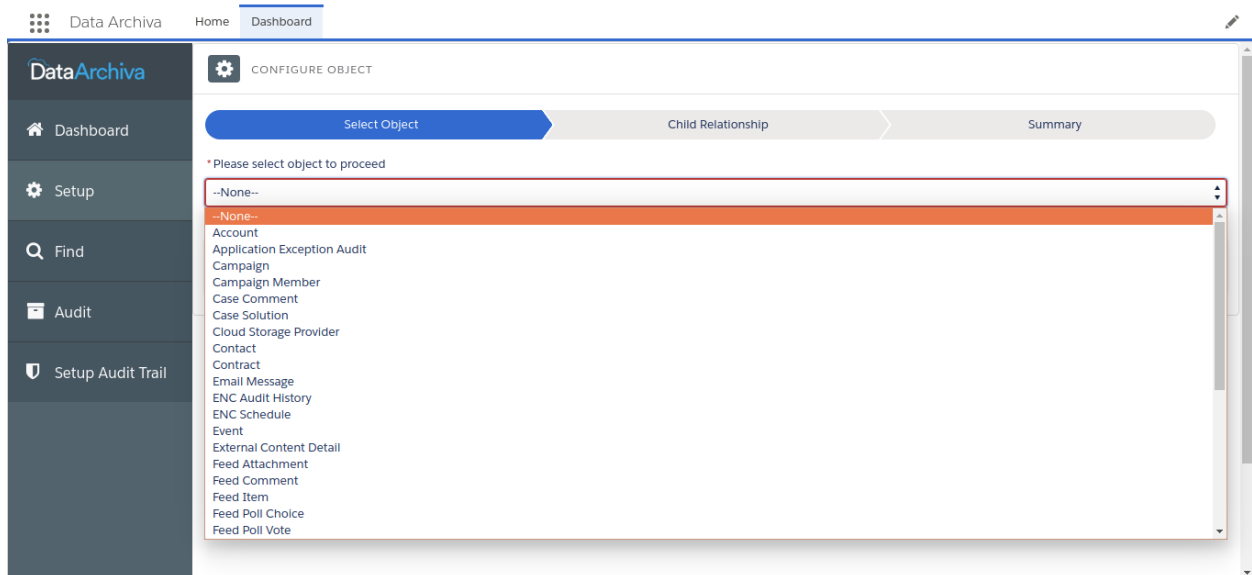
5. Configuring Objects to Archive.

Configuring objects for data archival is the first step to start with. Once objects are configured for archiving, an equivalent big object schema is created for every standard/custom object configured. DataArchiva takes care of schema relationship and data type mapping automatically.

5.1. Objects to archive

To configure an object for archiving, please follow below steps.

- Click on the "Setup" tab and then click on "New" to configure a new object for archiving.
- Select any object from the available list to archive. At a time, only one object can be configured and you may have to repeat this for each object.
- Click on "Next"



5.2. Index Fields

Indexing object fields will help improve the speed of data retrieval operation, when these fields are used in filter criteria. To make index field selections, follow below steps.

- Once an object is selected, all fields of the selected object are listed.
- Pick up to four index fields that will be used for the search.

Note: For text fields, preferable select upto two text fields because all text fields combined should not exceed more than 50 chars as per Salesforce.

Salesforce supports up to 5 index fields and by default id field is indexed internally, that leaves you to choose four index fields

Please remember the sequence in which these index fields are selected. This is important because to query data from Big objects, you need a WHERE clause & this WHERE clause follows the same sequence in which indexed fields are selected.

Ex: If you select Case Type, Status & Name, then you need to write a WHERE clause like this

WHERE Case Type = AND Status = AND Name =

In case if there is lookup field, It is advisable to select the lookup field as first index as this will help to build the detail page explained in section (7). If there is more than one lookup fields, pick the one that is needed in your details page.

The screenshot shows the 'CONFIGURE OBJECT' interface for 'Case' in DataArchiva. The interface has a sidebar with 'Dashboard', 'Setup', 'Find', 'Audit', and 'Setup Audit Trail'. The main area has a progress bar with 'Select Object', 'Child Relationship', and 'Summary' steps. Below the progress bar, there's a dropdown for 'Case' and a section for 'INDEX FIELDS'. The 'INDEX FIELDS' section has a table with columns for field name, API name, and data type. The first two columns are labeled '1 : Type' and '2 : Status'. The table lists fields like Business Hours ID, Parent Case ID, Name, Email Address, Phone, Company, Case Type, Status, and Case Reason. 'Case Type' and 'Status' are checked. A 'Quick Find' search bar is on the right. At the bottom, there are 'Cancel' and 'Next' buttons.

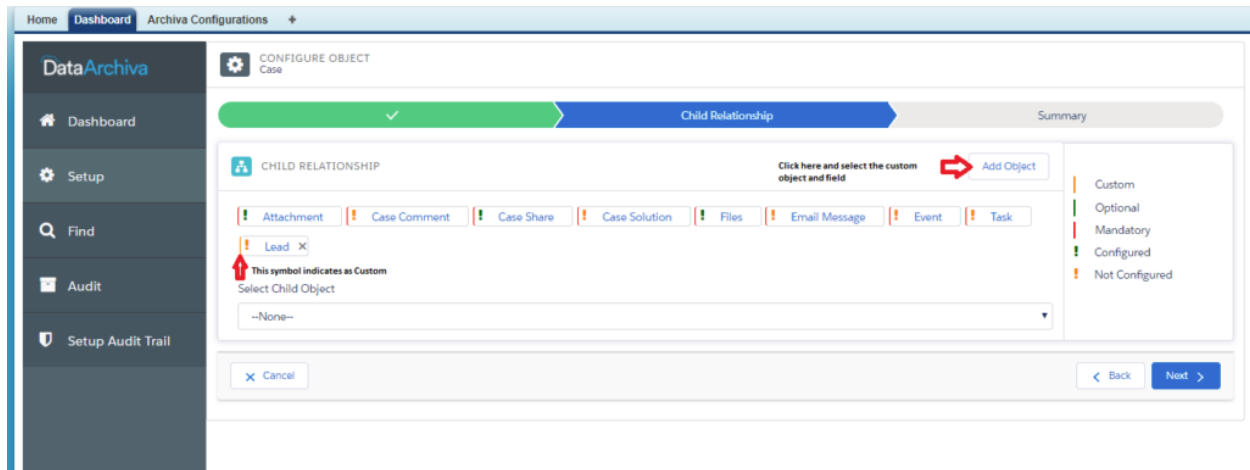
1 : Type	2 : Status	
<input type="checkbox"/>	Business Hours ID	BusinessHoursId Text
<input type="checkbox"/>	Parent Case ID	ParentId Text
<input type="checkbox"/>	Name	SuppliedName Text
<input type="checkbox"/>	Email Address	SuppliedEmail Text
<input type="checkbox"/>	Phone	SuppliedPhone Text
<input type="checkbox"/>	Company	SuppliedCompany Text
<input checked="" type="checkbox"/>	Case Type	Type Text
<input checked="" type="checkbox"/>	Status	Status Text
<input type="checkbox"/>	Case Reason	Reason Text

5.3. Object Relationships

Based on the selected object for archiving, all its respective child objects are listed (like the one in the below screenshot).

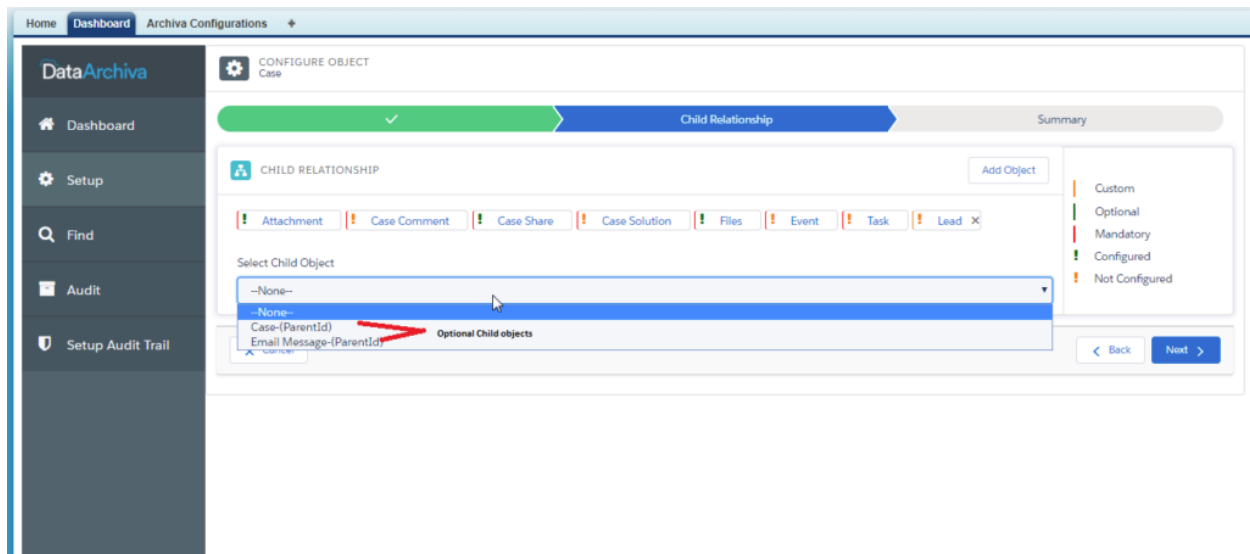
These child objects are of two categories.

1. Mandatory (Master-Detail relationship)
2. Non-mandatory (Lookups)

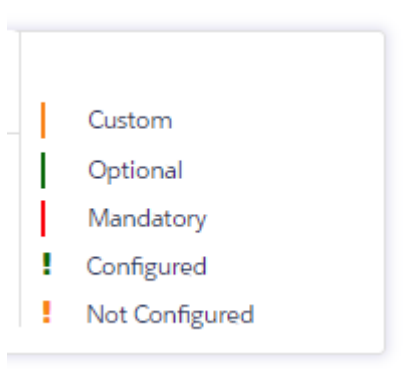


It is required to configure all mandatory child objects individually after completing configuration for its parent object. Until all mandatory child objects are configured, data archiving process can not be started.

Non-mandatory child objects are lookups that are optional, can be included here in case if you like to archive those child records too.



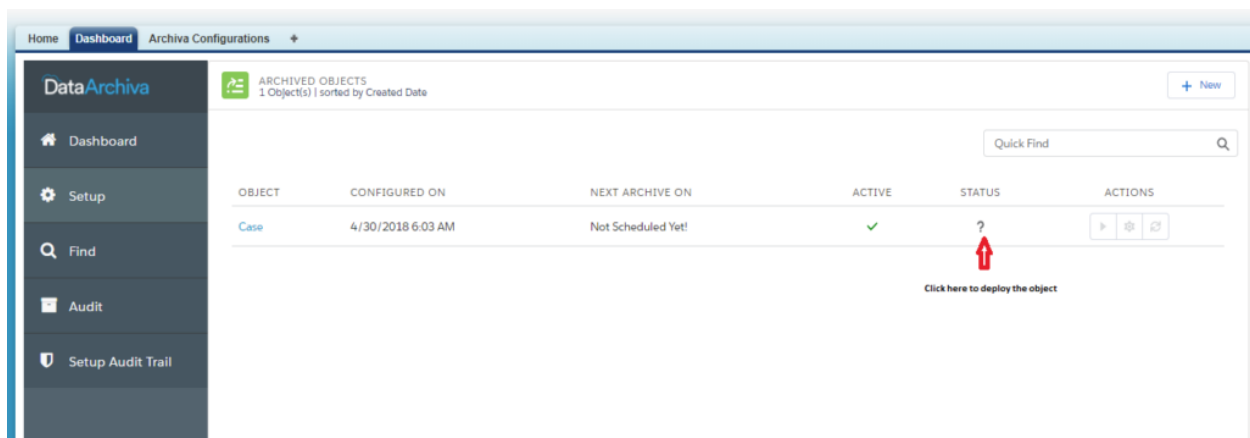
Additionally, non related objects can also be added to this archival on clicking on "Add object", which indicates this child object is not related with schema relationship but relationship exists with data. You will have to select the field that is related to this object. In the legend, this type of object is termed as Custom.

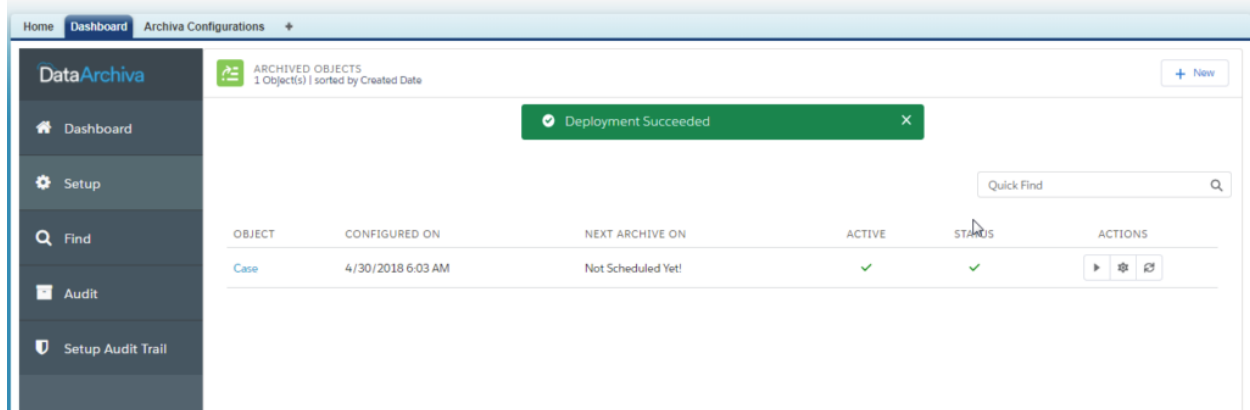


Once child objects are selected, click on "Next" to get the summary page and finally click on "Done" button to save the configuration.

5.4. Configuration Status

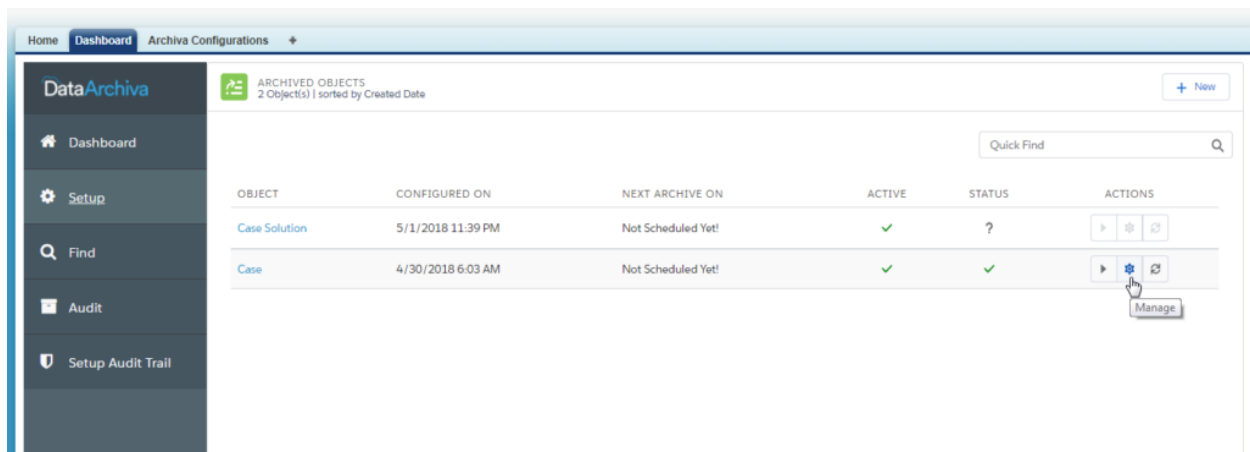
Once object configuration is saved, archiving is still not ready unless all child objects are configured. To check this, go to object listing on the setup page and click "Status" icon. This will display the status and turn to "Ready" once the configuration is successfully deployed, else an error message will be displayed on the screen. You will get an email notification if the initial configuration deployment fails.

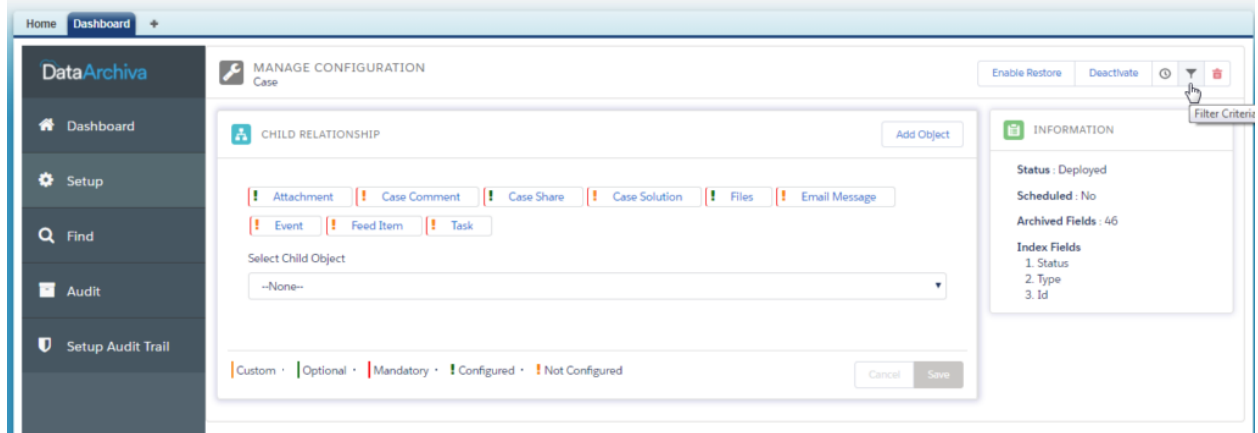




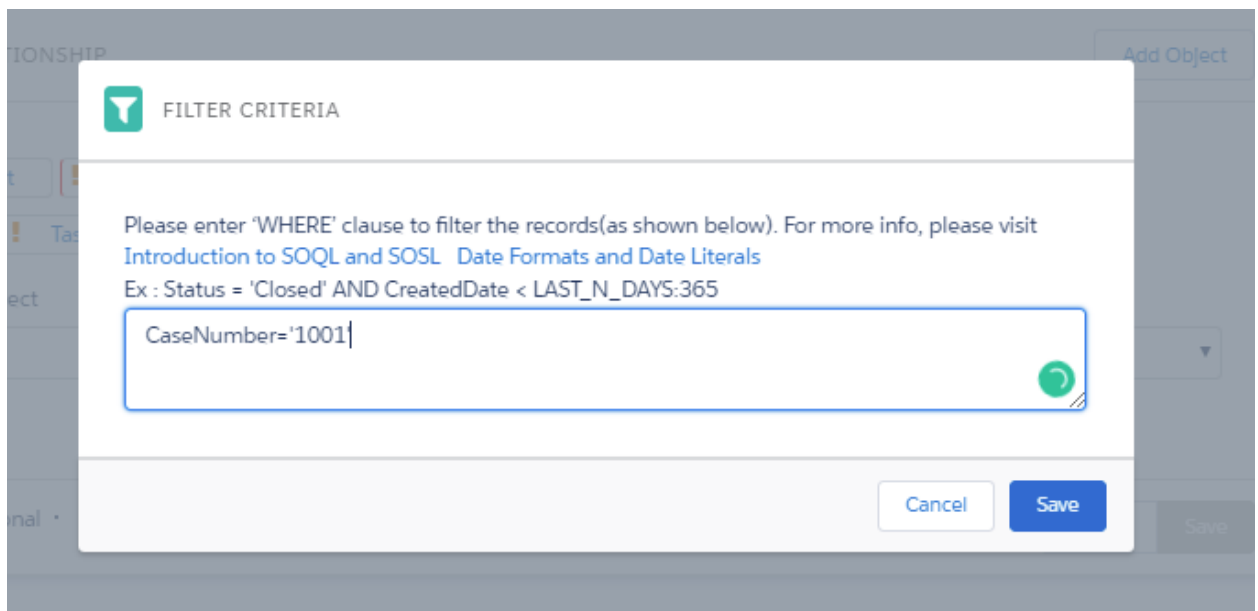
5.5. Filter Criteria

Data that have to be archived, needs a filter criteria and based on this criteria, data are archived from Salesforce object to Big object. Example are like archive all records older than 5 yrs or when Case object is closed and many more complex criterias with filter criteria option. To define the filter criteria, click on manage icon from object configuration list in Setup tab and then click on filter icon as shown in the screenshot.





Clicking on filter icon will bring up a popup to define a filter criteria.

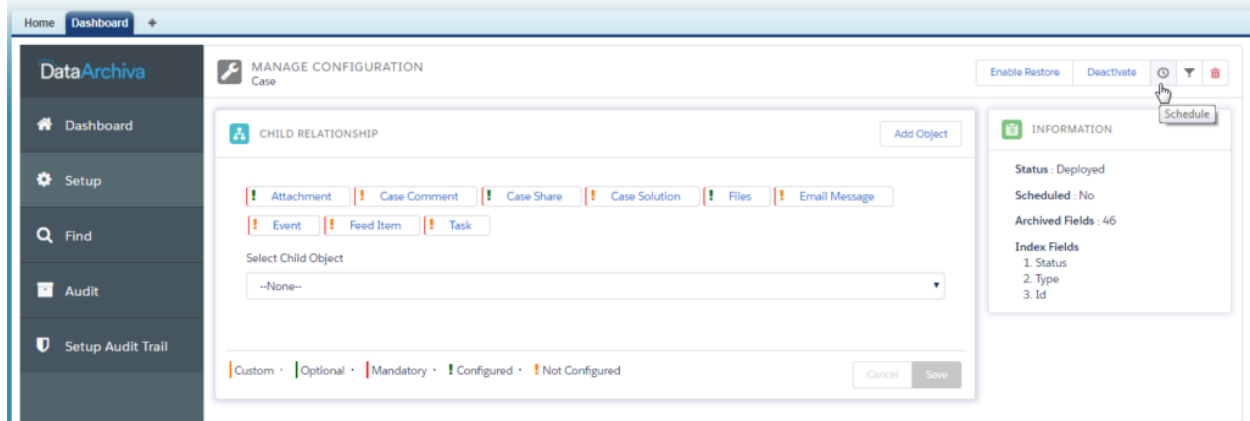


Provide a filter criteria in SOQL syntax and click on Save. System will validate the query syntax and throw error message in case any error.

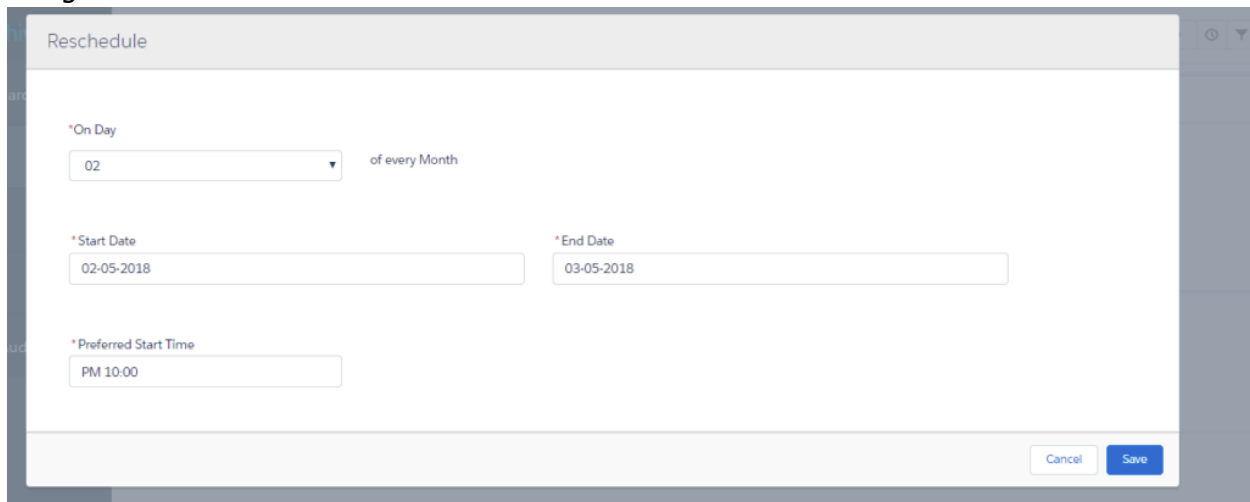
5.6. Scheduling

Data archiving can be completely automated by using scheduler that can be run periodically in the background based on the query filter criteria and defined schedule intervals defined.

To define a periodic schedule, click on manage icon from object configuration list in Set-up page and then click on the schedule icon as shown in the screenshot.



The popup page will show available schedule options. You can define the day, month and time along with start and end dates.



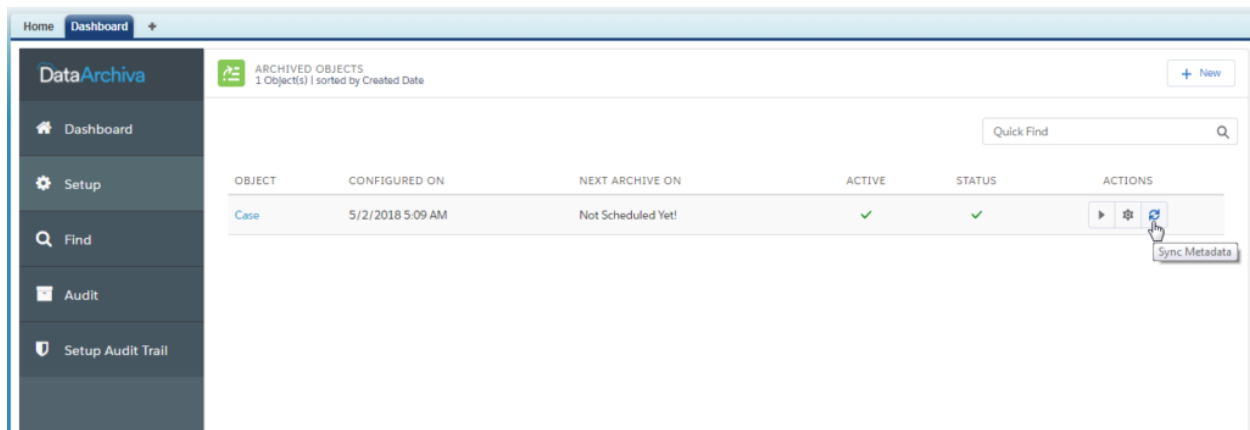
Once a schedule is defined, click on Save.

Depending on the defined schedule, the scheduled job will automatically start archiving records along with all referenced child object records.

5.7. Metadata reconciliation

Whenever there is a change in schema such as a new field is added to an object or a data type change is made, then these has to be updated in Big objects as well for a smooth data archival process. This is automatically been taken care by DataArchiva before starting an archival process, but if an administrator wants this to be done manually, then it can be done from UI too.

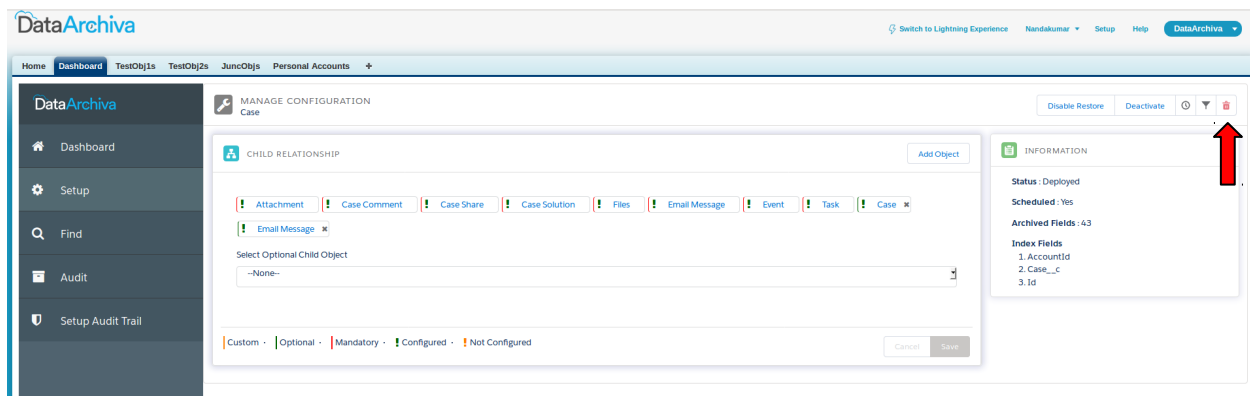
To invoke a manual metadata reconciliation, click on Sync Metadata icon from object configuration list in Setup page



This will invoke metadata synchronization and the outcome will be displayed on UI when it either succeeds or fails.

5.8. Delete Big object

After an object is configured, it can be deleted provided respective big object doesn't have any archived data in it. To perform this delete operation, click on manage object icon from the object list on Setup tab in DataArchiva and click on the Delete icon as shown in the below screenshot.



6. Data Archive

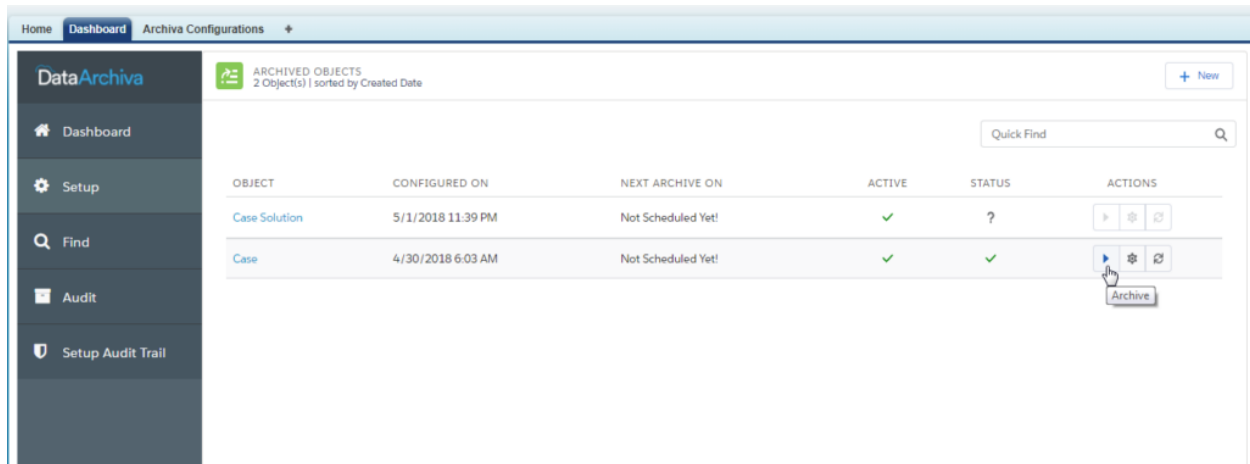
To archive data, it is prerequisite to configure object and its related child objects. Make sure configuration of all related objects are complete before proceeding to archive. Data archiving can be done in multiple ways as listed below.

- Manual
- Process builder
- Scheduler

- API

6.1. Manual

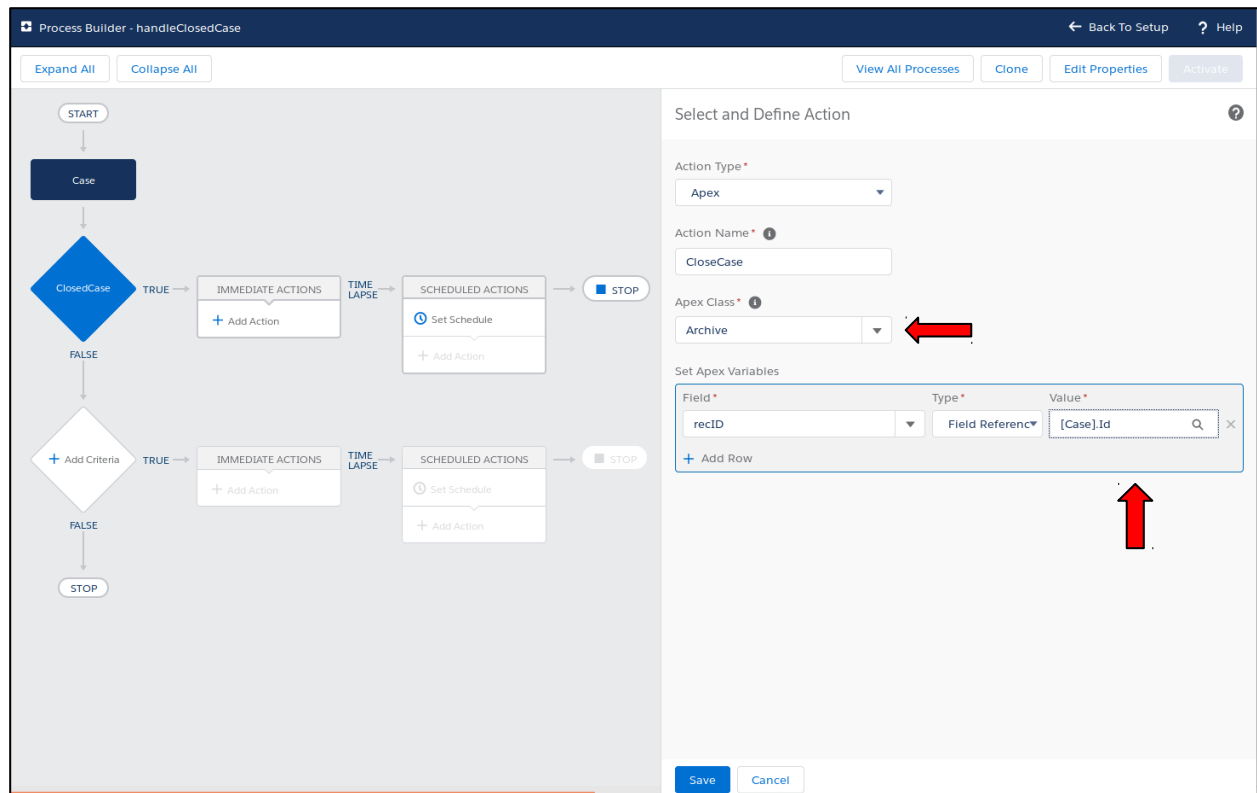
To perform a manual data archiving for any configured object, click on Archive icon on the configuration listing page of Setup tab. This will invoke an archival process based on the filter criteria set for this particular object. See the below screenshot -



The archiving process is a backend activity and after completion, an email will be sent to the administrator indicating the status.

6.2. Process builder

Data archive can also be achieved while integrating with Process Builder. Using the Process Builder, any complex criteria can be added and map to an Apex API called "Archive"



For the API, recID parameter have to passed with the record id of the object that has to be archived.

This Apex API takes care of archiving that object record along with all child object records that are related to this object record as defined in the DataArchiva object configuration.

6.3. Scheduler

It is possible to archive data periodically in an automated way in the background using Scheduler. This requires both Query filter and scheduler configuration, for more details please refer to section 5.5 and 5.6.

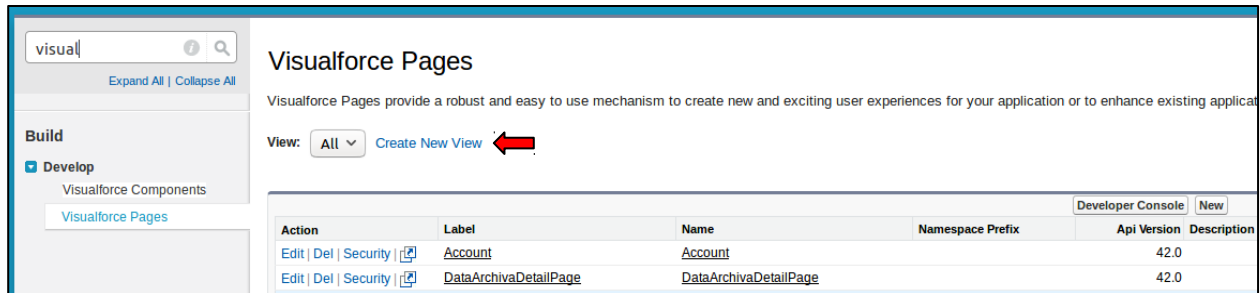
7. Viewing Archived Data

Standard or custom object page layouts can be customized to fetch data from the archived storage so that user experience need not be compromised. In order to embed a DataArchiva custom component in to your page layout, please follow below steps.

Before you begin with below steps, make sure you have configured Objects to archive and for more detail refer to section (5) of this document.

7.1. Create a new visual page

Create a new visual page by going into Setup and search for "visual". Next click on "New"



In the new Visual page, provide a name and description. In the page content, please add below content and change those highlighted words in bold to your object.

```
<!-- Provide the api name parent object name, in this case it is "Case" -->
<apex:page standardController="Case">
  <apex:slds />
  <div class="slds-scope">
    <!-- This is a DataArchiva component that takes of displaying child object list from Archiva
    <CEPARC:DataArchivaRelatedListComponent objectAPIName="EmailMessage"
    parentRecordId="{!Case.Id}"
    displayFields="RelatedToId,Parent,FromAddress,BccAddress,ToAddress,CcAddress,HasAttachment,Status,Subject,TextBody" lookupFieldAPIName="RelatedToId" />

  </div>
</apex:page>
```

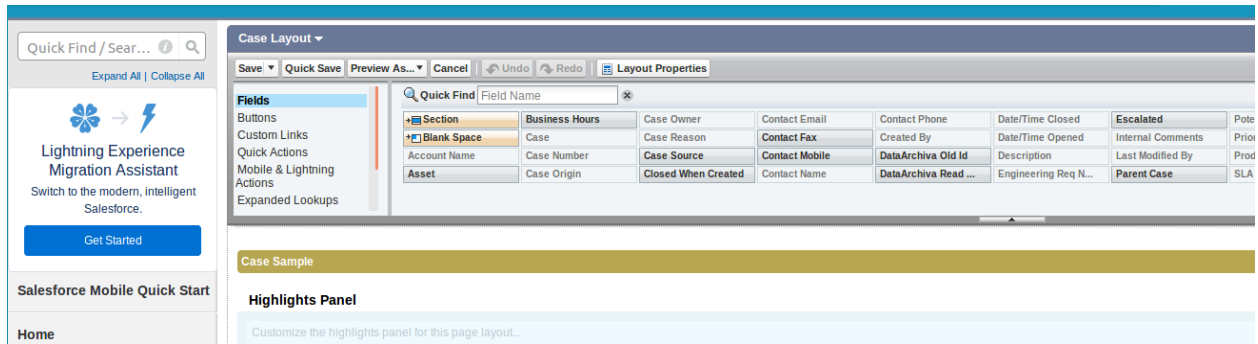
- **standardController** - Provide the parent object API name. This can be standard or custom object.
- **objectAPIName** - Name of the child object API name.
- **parentRecordId** - Parent object id
- **displayFields** - Child object fields to display in the list component.
- **lookupFieldAPIName** - Child object field that holds the lookup to the parent object.

Note: In case if you have multiple child objects and want to include in the same visual page, then add multiples of "<CEPARC:DataArchivaRelatedListComponent" and provide required child object details.

Once done with the visual page content, save the page.

7.2. Modify page layout

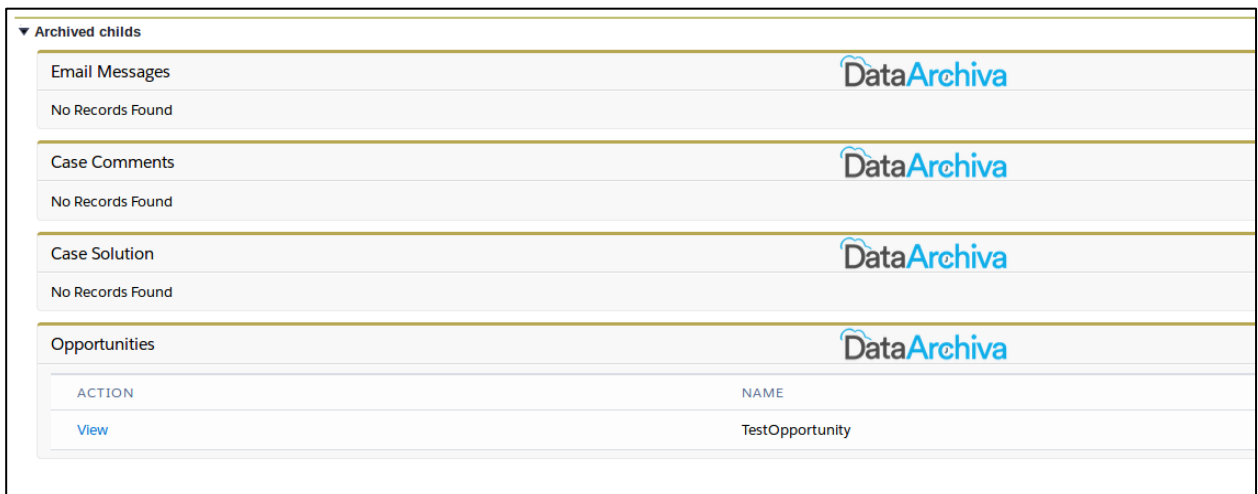
Edit the page layout of the object that you would like to add DataArchiva list component.



- Select "Fields" and drag a new section to your page layout at a desired location within the page.
- Select "VisualForce Pages" and drag the newly created page in the section.
- Save the page layout and this is now ready to display child object list retrieved from the Big object storage.



- Final page with the new section will look as below. (This example taken for parent Case object)

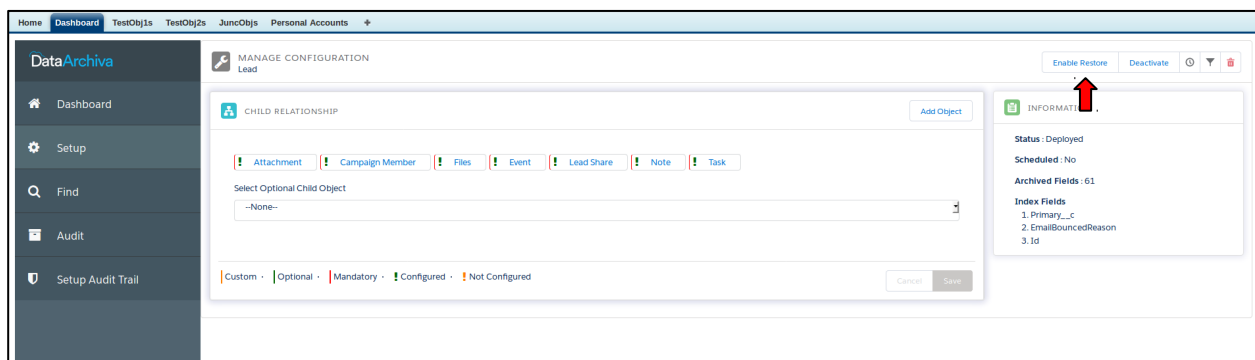


8. Data Restore

Once data is archived, the object records are moved to Big object storage. For business reasons, if these records need to be restored back in to Salesforce objects, the restore feature can be of use.

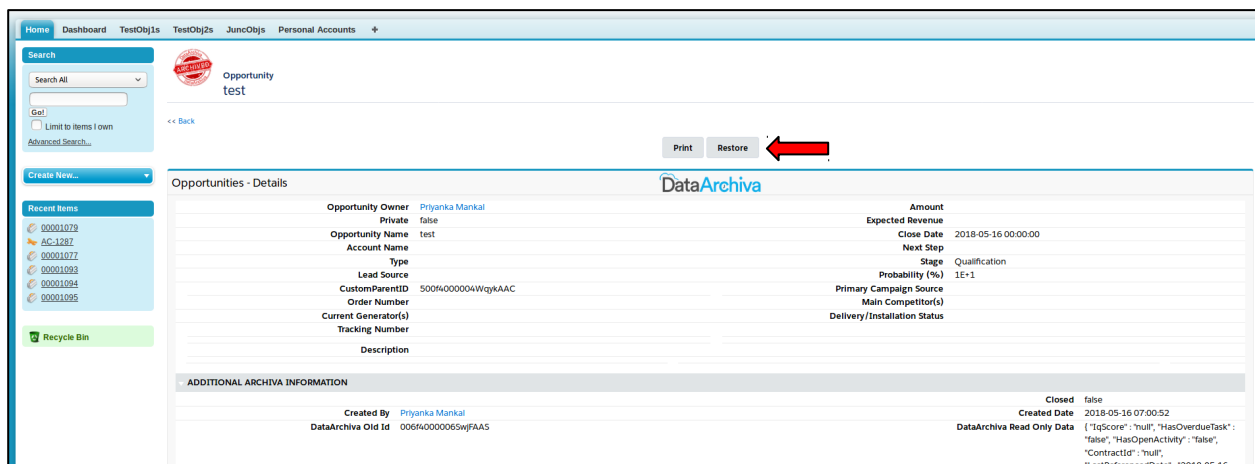
8.1. Configuration

In order to restore data, this option has to be enabled at the object level. To enable restore, go to DataArchiva setup page and click on manage icon for the listed object. In the manage screen, click on "Enable Restore" button to enable restore option.



8.2. Restore

Archived Big object record can be restored back in to Salesforce object only at a record level. To perform this operation, click on "Restore" button from the detail page of the archived record.



9. Search Archive

Archived data can be searched using SOQL, to perform search click on “Find” sub tab.

The screenshot shows the DataArchiva application interface. The top navigation bar includes links like Home, Dashboard, and various MDSyncChild tabs. The left sidebar has options: Dashboard, Setup, Find (highlighted with a red arrow), Audit, and Setup Audit Trail. The main content area is titled 'FIND ARCHIVED RECORD(S)' and 'Case'. It features a progress bar with 'Filter Criteria' and 'Result' stages. Below this is a table with columns: ORDER, FIELD LABEL, FIELD API, and DATA TYPE. The table lists one field: Account ID (S_AccountId_Indexed__c, Text). Below the table, there is a text input area for SOQL query conditions, with a hint: 'Enter SOQL query conditions below in the indexed field sequence(as shown below). Ex: S_AccountId_Indexed__c = 'some value''. A 'Cancel' button is on the left and a 'Fetch' button is on the right of the input area.

ORDER	FIELD LABEL	FIELD API	DATA TYPE
1	Account ID	S_AccountId_Indexed__c	Text

Select an object and provide a filter criteria. Please note that only indexed fields can be used in filter criteria within the same sequence they were selected while configuring an object and the available index fields are listed for reference. If you have more than one fields in filter criteria, it is required to follow the same order. For more details on the index fields, please refer to section (5.2).

Alternatively, in case if there are no filter criteria specified, entire result are fetched with pagination.

The resultset can also be downloadable as CSV file.

10. Audit

Every operation performed inside DataArchiva application are audited for future references. To view, these audit data click on “Audit” sub tab.

DataArchiva

Dashboard

Setup

Find

Audit

Setup Audit Trail

48 AUDIT RECORD(S) FETCHED

The last 100 entries of DataArchiva audit logs are listed below. For all DataArchiva audit logs please click Download.

Download as CSV

Quick Find

DATE	USER	ACTION	OBJECT
5/23/2018, 11:49:35 AM	soniya.c@ceptes.com.dataarchiva.dev7	CONFIGURED	Assignee
5/23/2018, 6:20:55 AM	syed.aswan@ceptes.com.dataarchiva.dev7	CONFIGURED	Opportunity
5/23/2018, 6:17:04 AM	syed.aswan@ceptes.com.dataarchiva.dev7	CONFIGURED	Account
5/23/2018, 6:01:54 AM	syed.aswan@ceptes.com.dataarchiva.dev7	CONFIGURED	Case
5/23/2018, 5:44:04 AM	syed.aswan@ceptes.com.dataarchiva.dev7	CONFIGURED	Email Message
5/23/2018, 5:43:01 AM	syed.aswan@ceptes.com.dataarchiva.dev7	CONFIGURED	Case Solution
5/23/2018, 5:42:41 AM	syed.aswan@ceptes.com.dataarchiva.dev7	CONFIGURED	Case Comment
5/22/2018, 12:27:45 PM	vipul.mittal@ceptes.com.dataarchiva.dev7	CONFIGURED	Personal Account
5/21/2018, 12:37:55 PM	vipul.mittal@ceptes.com.dataarchiva.dev7	CONFIGURED	Contact
5/17/2018, 12:07:28 PM	soniya.c@ceptes.com.dataarchiva.dev7	CONFIGURED	Lead

Audit events are captured for following actions.

CONFIGURED	When a new Object is configured for archive.
AUTOMATED_ARCHIVE	Archival of data happened as an outcome of scheduler or process builder.
MANUAL_ARCHIVE	Whenever data archival is manually triggered.
RETRIEVED	When data from the archived storage are fetched.
METADATA_SYNC	At the start of Metadata synchronization either manually or automated, way before starting the data archival process.
RESTORE	When data is restored from archived storage to Salesforce object.
DELETED	When record is deleted in Salesforce object
SCHEDULED	When schedule is created for an object configuration.
RESCHEDULED	When schedule is altered for an object configuration.
CHANGED_FILTER_CRITERIA	Modifying filter criteria of object configuration will result in this event.
ACTIVATED	When clicking on activate in the object configuration setup page.
DEACTIVATED	When clicking on de-activate in the object configuration setup page.
ADDED/MODIFIED_CHILDREN	Whenever metadata synchronization service added or

alters big object schema.

11. Setup Audit Trail

Since Salesforce audit trail data retention is only for six months, DataArchiva takes care of archiving these data into archive storage for full retention. These event data can be used for future reference or auditing. To view these data click on "Setup Audit Trail".

DataArchiva SETUP AUDIT TRAILS
The last 100 entries for your organization are listed below.
To download your organization's archived setup audit trail (Excel .csv file), click on Download as CSV.

[Schedule](#) [Download as CSV](#)

Quick Find

DATE	USER	SOURCE NAMESPACE PREFIX	ACTION	SECTION	DELEGATE USER
5/16/2018, 2:18:57 PM	syed.aswan@ceptes.com.dataarchiva.dev7		Changed DataArchivaActivityAuditor Apex Class code	Apex Class	
5/16/2018, 2:17:07 PM	syed.aswan@ceptes.com.dataarchiva.dev7		Changed ArchivaRemoter Apex Class code	Apex Class	
5/16/2018, 2:16:02 PM	syed.aswan@ceptes.com.dataarchiva.dev7		Changed DataArchivaActivityAuditor Apex Class code	Apex Class	
5/16/2018, 2:15:05 PM	syed.aswan@ceptes.com.dataarchiva.dev7		Changed DataArchivaActivityAuditor Apex Class code	Apex Class	
5/16/2018			Changed DataArchivaActivityAuditor Apex Class		

For the first time, click on "Schedule" button and provide required details, so that audit trail data can be archived periodically over the time.

By default, latest hundred records can be viewed and also can be downloadable as CSV file.