Jpetto Field History Tracker

User Guide

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Overview

      Jpetto Field History Tracker is a native salesforce application that provides comprehensive tracking and storage of field history for any salesforce object. This app enables users to efficiently monitor and control changes made to their salesforce data. It offers several benefits, including efficient auditing, compliance, comprehensive tracking, flexible storage options, visualization, backup capabilities, configurable settings, and data management.

Limitations of Standard FHT

Below are the limitations of salesforce standard field history tracking:

1. Allows tracking a maximum of 20 fields per object, including custom objects.
2. Standard objects, such as 'User', 'Event', 'Task' , cannot be tracked.
3. Fields like 'Roll-Up Summary', 'auto-number fields', 'Created By', 'Last Modified By', and 'Expected Revenue on Opportunity' cannot be tracked.
4. Cannot track the original and new value for Text Area (Long), Text Area (Rich), and Picklist (Multi-Select) type of fields.
5. Field history data is retained for only up to 18 months if your organization was created after June 1, 2011.

Why choose Jpetto FHT?

Jpetto FHT covers all the standard salesforce FHT limitations and provides additional features like Backup to Google Drive, Scheduled backup to salesforce as files/Google Drive, and tracked data can be exported as CSV files. Key features include:

Data Integrity and Accuracy: A transparent view of data changes helps prevent errors, identify potential issues, and correct inaccuracies.

Transparency and Accountability: Users can easily trace the history of changes to specific fields and identify who made the changes and when.

Data Recovery and Restoration: Historical data to find previous values to re-enter, minimizing the impact of data incidents of accidental data loss or data corruption.

Security and Fraud Detection: Suspicious or unauthorized changes to critical data fields can be easily identified.

Decision Making and Analysis: With historical datasets, businesses can analyze trends, patterns, and historical performance.

Steps to access Jpetto FHT

1. Install the Jpetto Field History Tracker into your salesforce org.

2. Assign package licenses to the required users in salesforce org.
3. Open App Launcher. In the search box, type 'Field History Tracking' then click on the **Field History Tracking** displayed as shown in the below image.
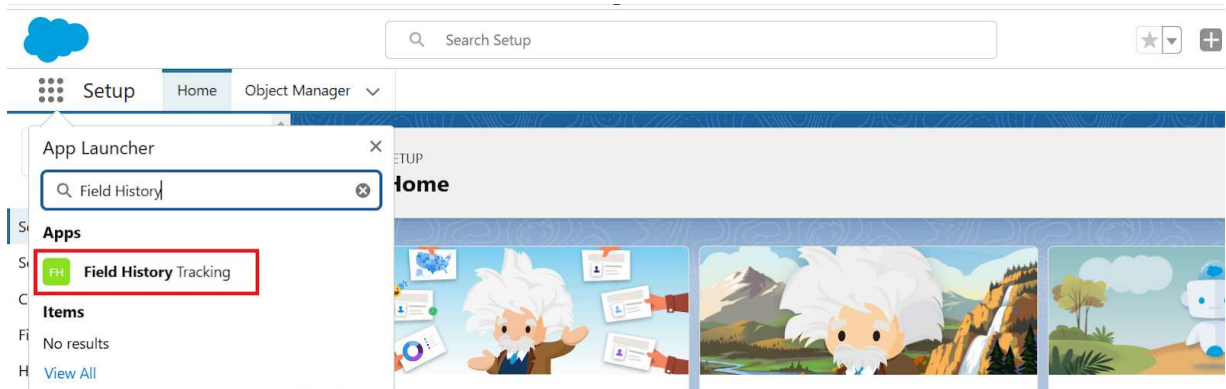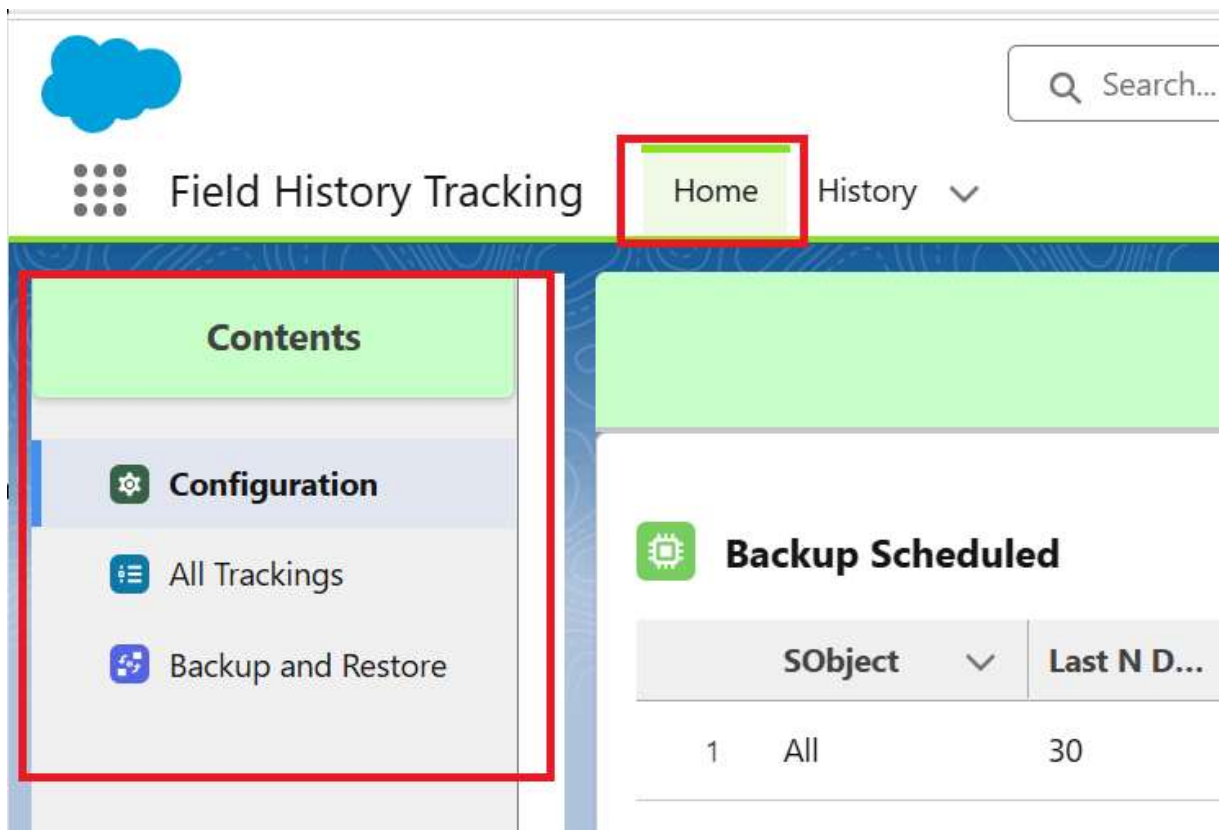

4. On click of **Field History Tracking**, you can see two Tab/pages in the application: 'Home' and 'History'.
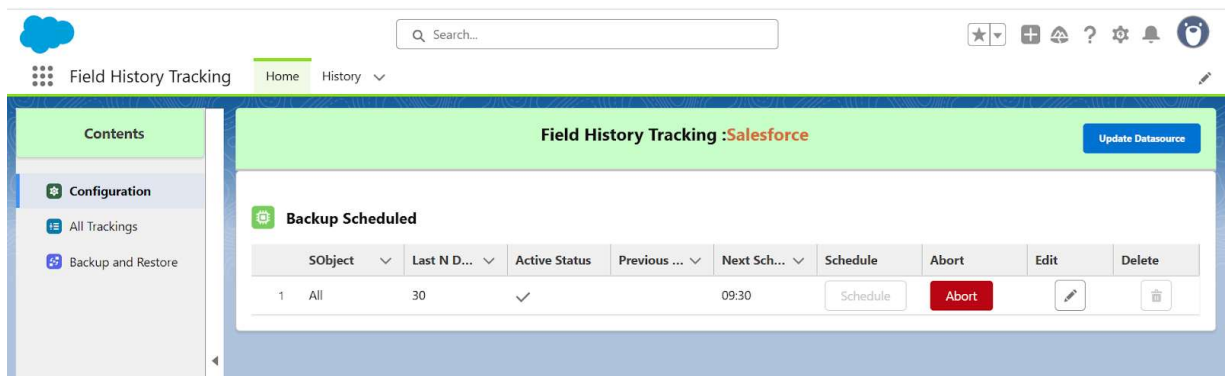

Page: Home

This page helps with the initial setup of the Jpetto Field History Tracker tool, which has multiple items in the left sidebar.

- Configuration
- All Trackings
- Backup and Restore

Configuration

- When we click on the configuration item, we see a button **Schedule New Backup** to schedule a backup of tracking history records to the selected data source(Salesforce or Google Drive).
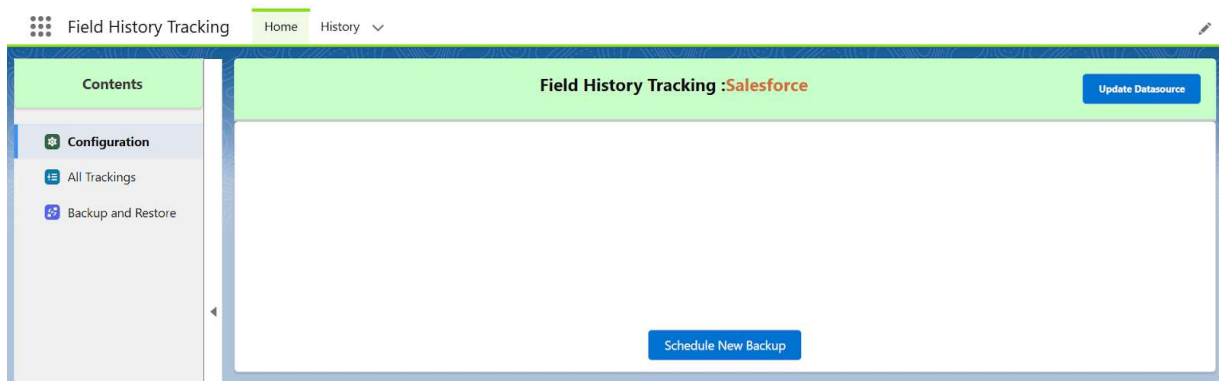
- We can also see all the scheduled backups in tabular format with columns as SObject, Last N Days, Active Status, Previous Schedule Run, Next Schedule Run, Schedule, Abort, Edit and Delete.
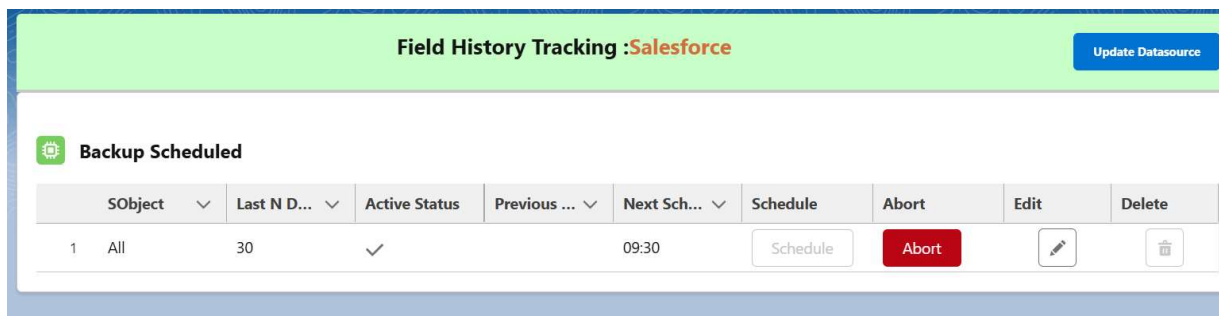
- Users can select the data source like Salesforce, Google Drive for the scheduled backup data by using the **Update Datasource** button.
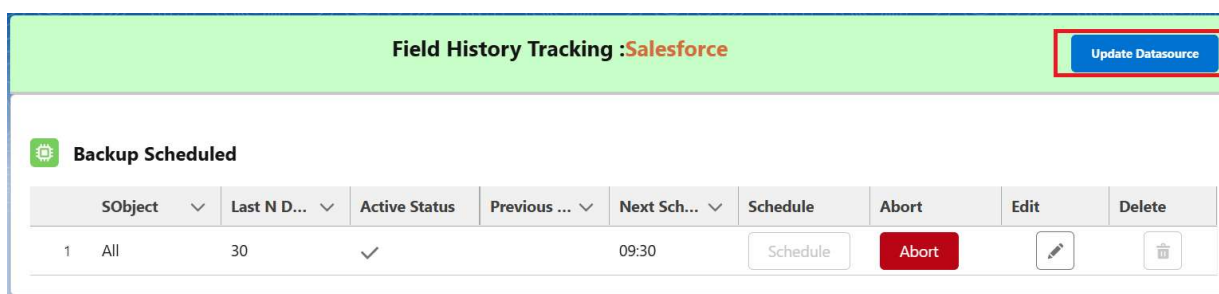
All Trackings

- All Trackings section provides capabilities to configure your standard and custom object for which you want to track field changes.
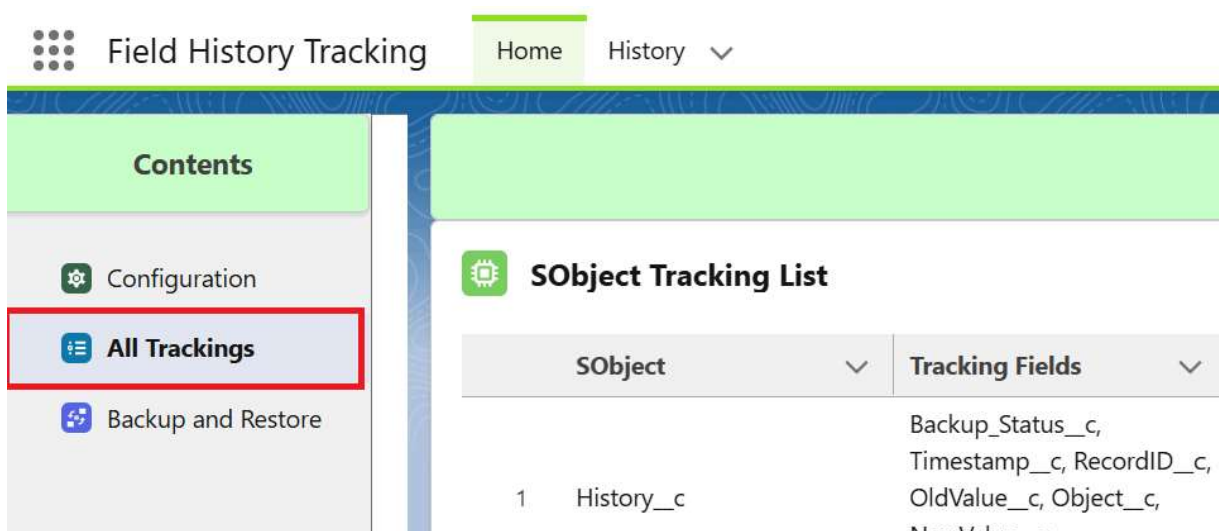
- Also, users can see all the tracking objects and fields as tabular format with columns as SObject, Tracking Fields, Tracking DND Fields, Active, Edit and Delete.

SObject: Displays the object configured for tracking.

Tracking Fields: Displays all the fields selected to track in the respective SObject.

Tracking DND Fields: Displays all the DND fields selected among the Tracking Fields of SObject

Active: Indicates whether the tracking is active or not.

Edit: Users can update the existing tracking from here and can temporarily stop the tracking by deactivating it.

Delete: Users can permanently delete the configured tracking from here.

Backup and Restore

This page helps to schedule a backup of tracked history data within the selected time period for the selected objects.
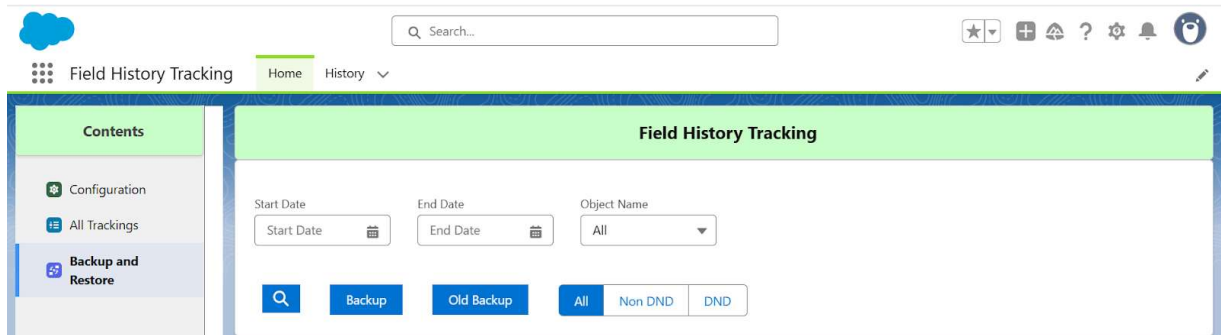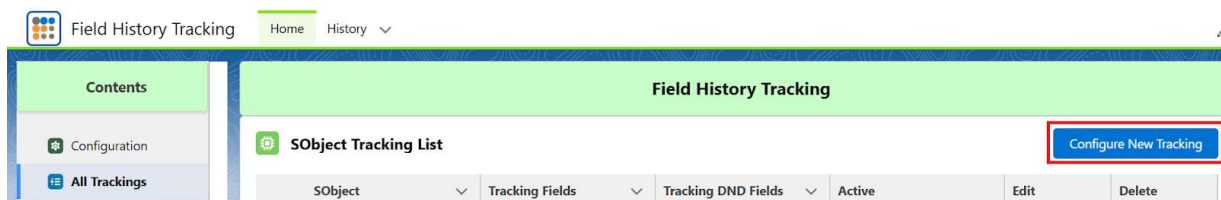

How to enable tracking of an object in FHT

To enable object tracking in Jpetto FHT, complete the below steps of setup

1. Configure Tracking in **All Tracking** Section
2. Create a flow for configured object

1. Configure Tracking in All Tracking Section

      Step 1: Navigate to App Launcher ⇒ Field History Tracking ⇒ Home ⇒ All Tracking ⇒ **Configure New Tracking**

      Step 2: Select the object you want to track from the drop-down list (Ex: Account)

      Note: All standard and custom objects of the org are available in the drop-down.

Step 3: Click **Next**.

Step 4: Select all the fields in the selected object you want to track from the **Available** section to the **Selected** section using arrows.

Step 5: Click on **Next**.

Step 6: The following screen will give the option to select the required field as DND among the fields selected in Step 4 by moving them from the **Available** section to the **Selected** section using arrows.

Q.) What is DND, and how is it useful?

Ans.) DND means Do Not Delete. Selecting any field as DND that needs to persist under certain circumstances and not be accidentally deleted by bulk/batch/delete actions from the FHT component. This is helpful in identifying the changes to critical fields/dates, audit trails, etc.


Step 7: Click on **Save**.

2. Create a flow for the configured object

We invoke the Jpetto Field History Tracker application logic from the Flows. For which object you wish to activate Tracking, please create a flow by following the steps below:

Step 1: Setup ⇒ Process Automation ⇒ Flows ⇒ New Flow
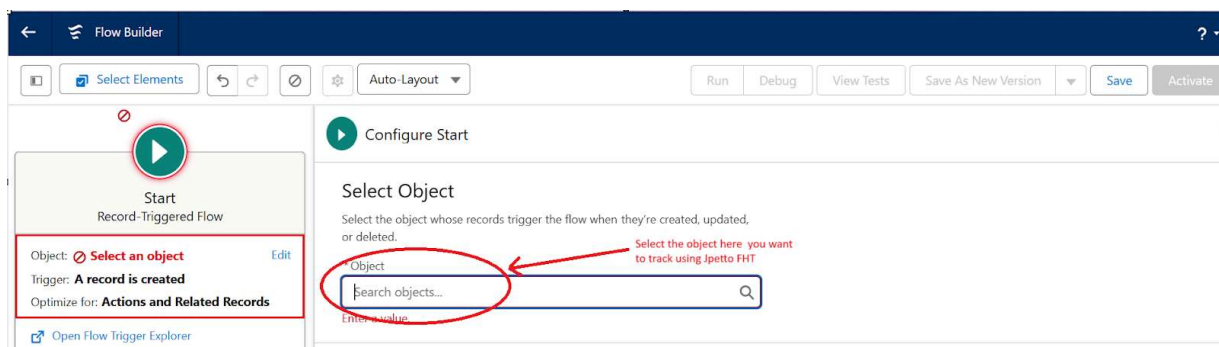
Step 2: Select **Start From Scratch** and click **Next**.
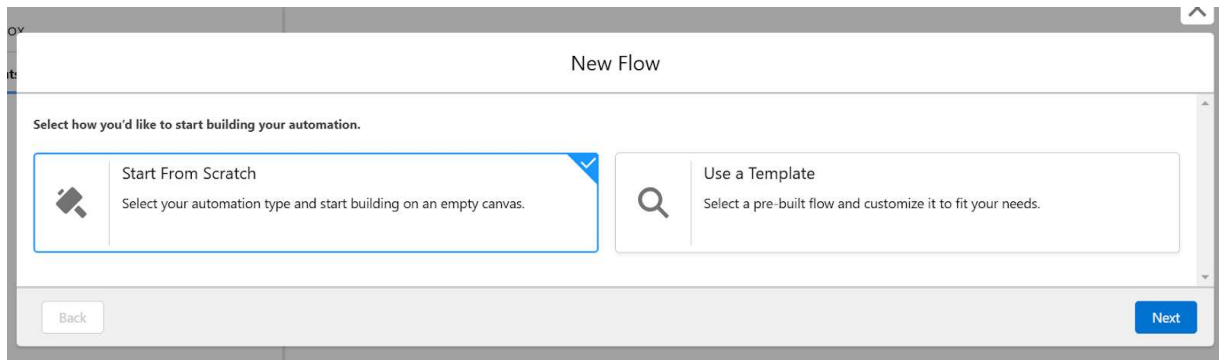
Step 3: Under 'Select Type' select **Record-Triggered Flow**.
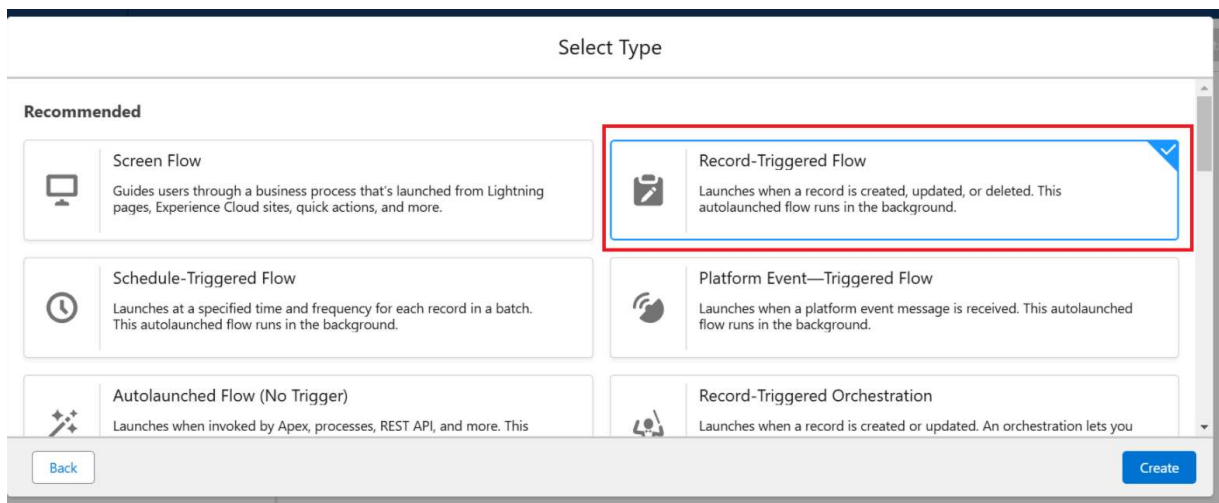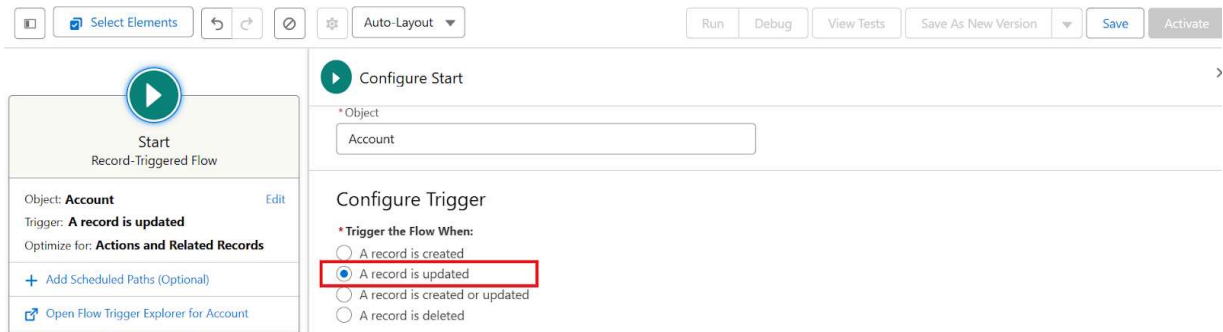

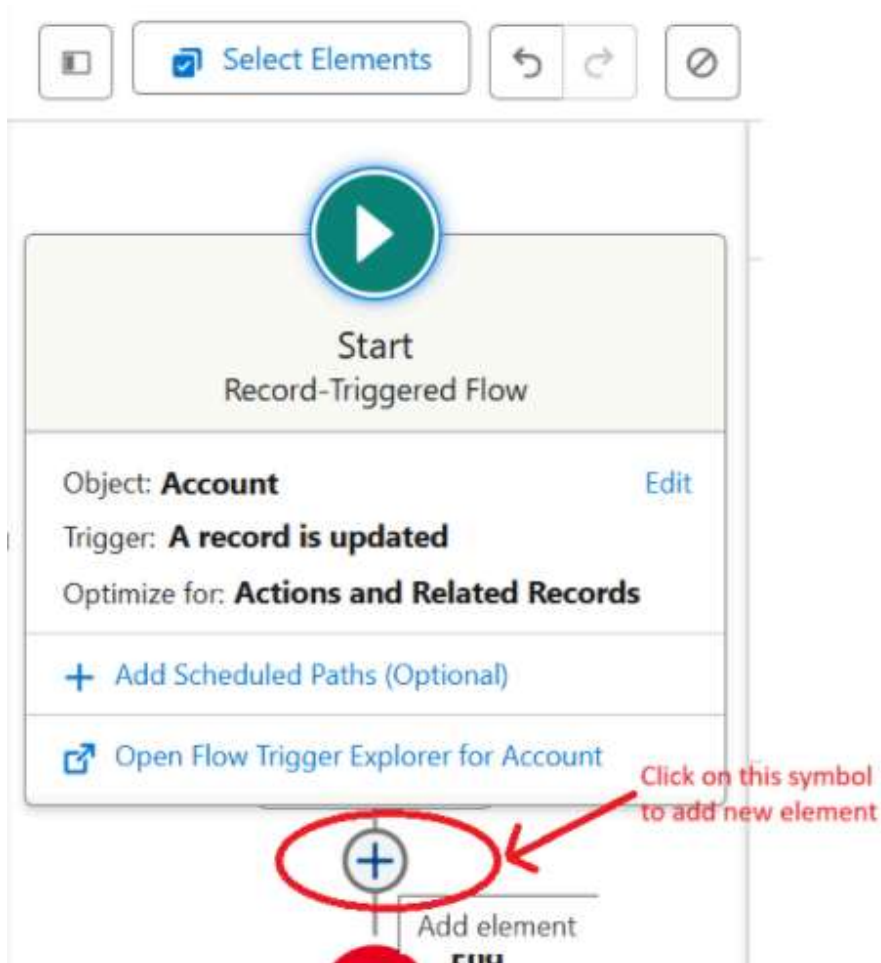**Step 4:** Click on **Create**.

Step 5: Under the **Select Object** section in the **Object** input field, select the object you want to track and add using the **Configure New Tracking** button.
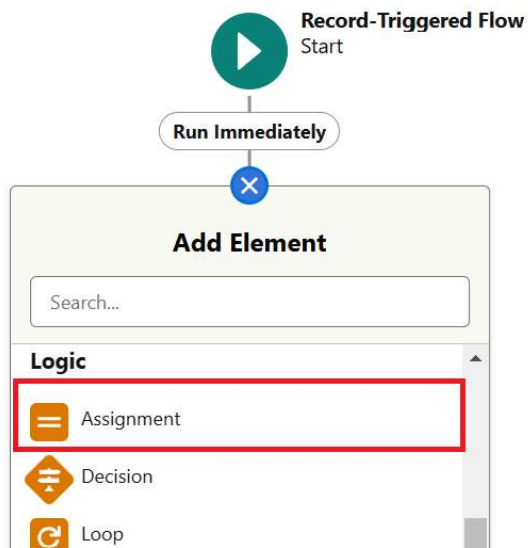

Step 6: Under the **Configure Trigger** section, in the **Trigger the Flow When:** input field, select the **A record is updated** radio button.

Step 7: Click on **'+'** symbol to add an element to the flow.

Step 8: Select **Assignment** under the 'Logic' section.

Step 9: Fill in the fields of the assignment below:

Label: add values

API Name: add_values

Set Variable Values:

Variable: newRecordsBulk (created in variable 1 steps below)

Operator: Add

Value: Triggering Account

Variable: oldRecordsBulk (created in variable 2 steps below)

Operator: Add

Value: Prior Values of Triggering Account

We need to create two new variables; please refer to the steps below to create them.

Variable 1:

Step 1.1: Click on the 'variable' input field and select the **New Resource** option from the drop-down menu.

Step 1.2: Select **Variable** from the **Resource Type** drop-down menu.

Step 1.3: Add **API Name:** newRecordsBulk

Step 1.4: Select the **Record** from the **Data Type** drop-down menu.

Step 1.5: Enable the **Allow multiple Values (collection)** checkbox.

Step 1.6: In the **Object** field select the object on which the flow is created (Ex: Account).

Edit Variable

*API Name 🛈

newRecordsBulk

Description

*Data Type 🛈

Record ▼   ☑ Allow multiple values (collection) 🛈

*Object

Account

Step 1.7: Enable the **Available for input**, **Available for output** checkboxes.

Edit Variable

*API Name 🛈

newRecordsBulk

Description

*Data Type 🛈

Record ▼   ☑ Allow multiple values (collection) 🛈

*Object

Account

Availability Outside the Flow
☑ Available for input
☑ Available for output

Cancel   Done

<u>Variable 2:</u>

Step 2.1: Click on the variable input field and select the **New Resource** option from the drop-down menu.

Step 2.2: Select **Variable** from the **Resource Type** drop-down menu.

Step 2.3: Add **API Name:** oldRecordsBulk

Step 2.4: Select the **Record** from the **Data Type** drop-down menu.

Step 2.5: Enable the **Allow multiple Values (collection)** checkbox.

Step 2.6: In the **Object** field select the object on which the flow is created (Ex: Account).

Step 2.7: Enable the **Available for input**, **Available for output** checkboxes.
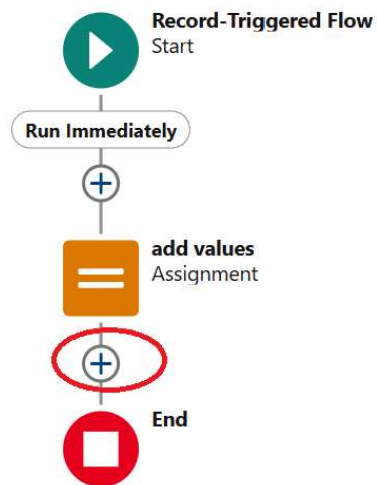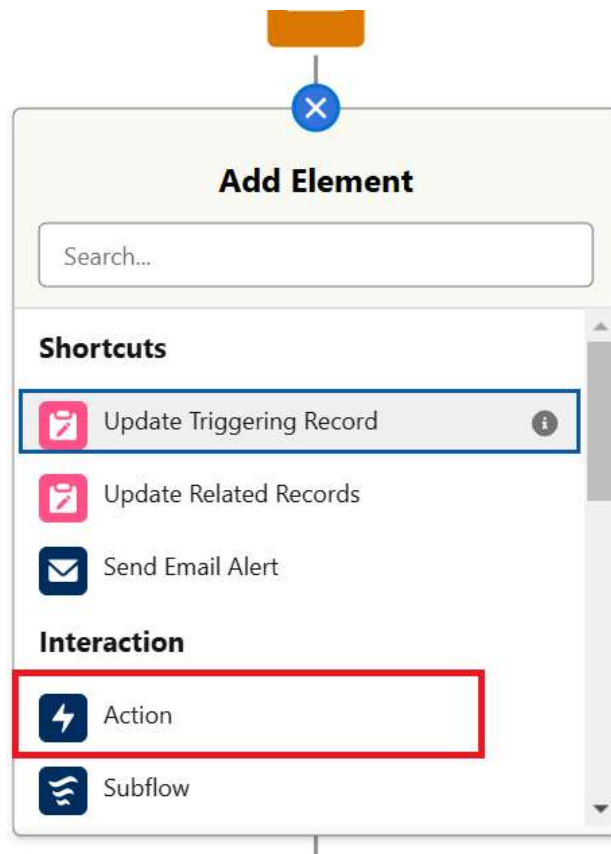
Step 10: Click on '**+**' symbol to add an element to the flow.

Step 11: Select **Action** under Interaction.

Step 12: In the search bar, type apex and select the **Account Trigger Using Flow** from the action type.

Step 13: Fill the fields as follows:

Label: call Apex

API Name: call_Apex

Select Objects

Object for "Records for New Input" (Input): Select the object on which the flow is created (Ex: Account).

Object for "new Records bulk" (Input): Select the object on which the flow is created (Ex: Account).

Object for "Records for Old Input" (Input): Select the object on which the flow is created (Ex: Account).

Object for "old Records bulk" (Input): Select the object on which the flow is created (Ex: Account).

Set Input Values for the Selected Action

new Records bulk: Enable it and select the collection variable "**newRecordBulk**" created in Step 9.

old Records bulk: Enable it and select the collection variable "**oldRecordsBulk**" created in Step 9.

Records for New Input: Enable it and select Global Variable: Triggering Account

**Records for Old Input:** Disable

Step 14: Save the flow.

Step 15: Finally, activate the flow to track changes.

Note: You need to create a flow for each object you want to track, and it is a one-time process.

**View Record History in Record Page**

We can easily view record level history in the lightning record page. For this update, Record Page to view History in lightning Experience as below:
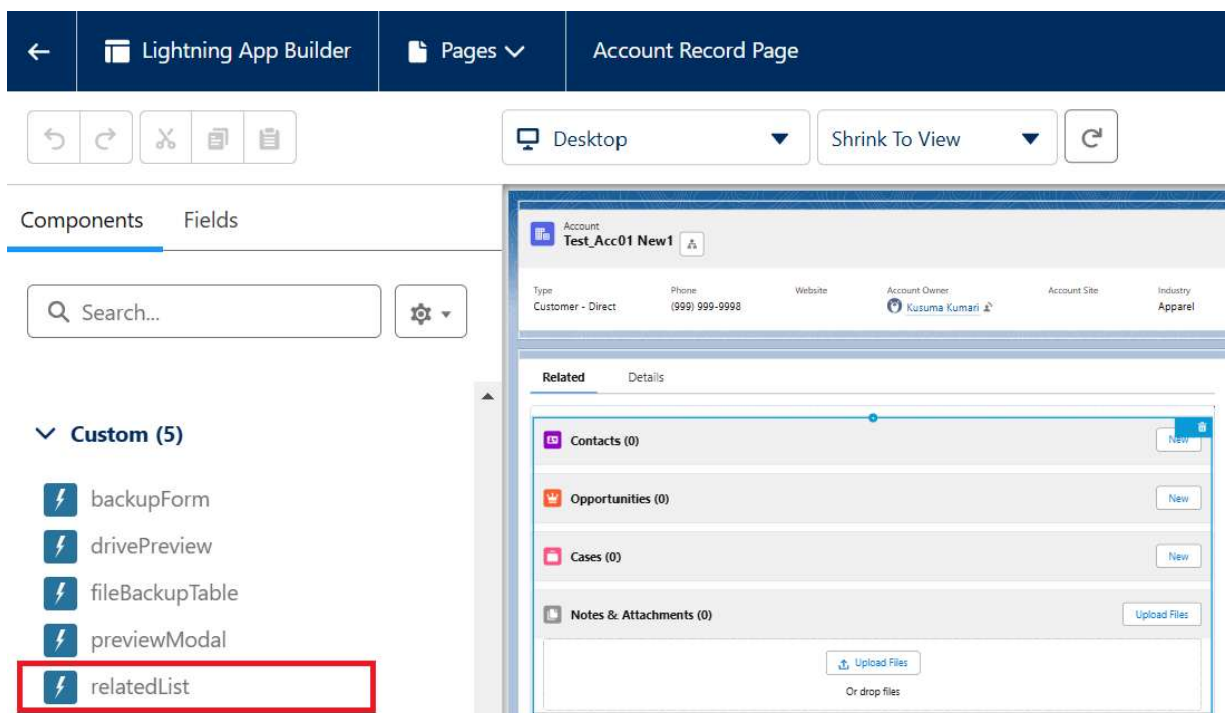
Step 1: Open any object record(Ex: Account Record Page) where you wish to add the History related list LWC component.
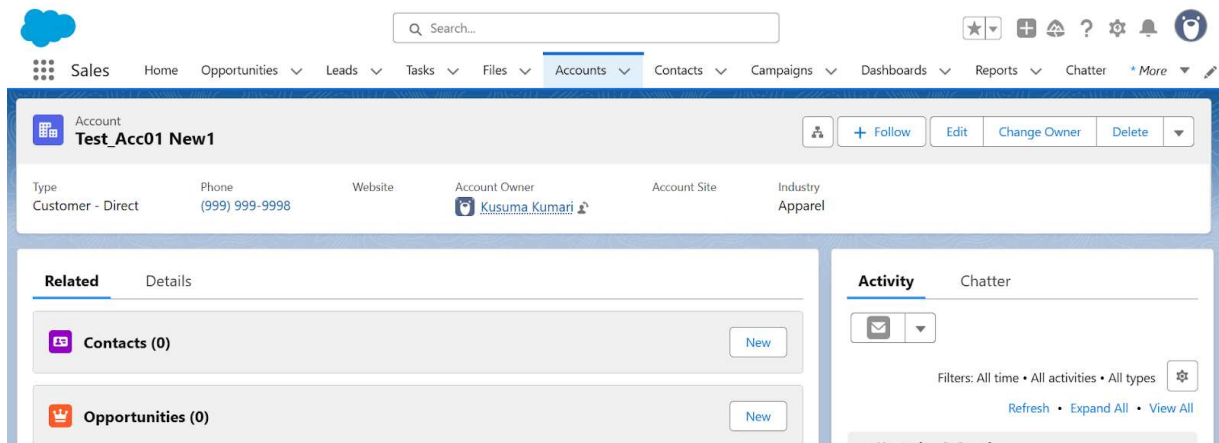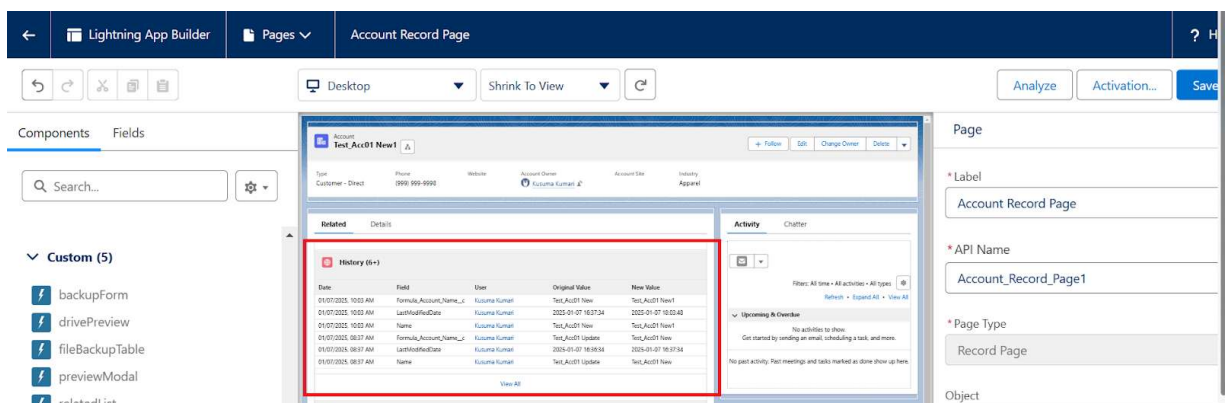

Step 2: Click on the gear icon and select **Edit Page** from the drop-down list.
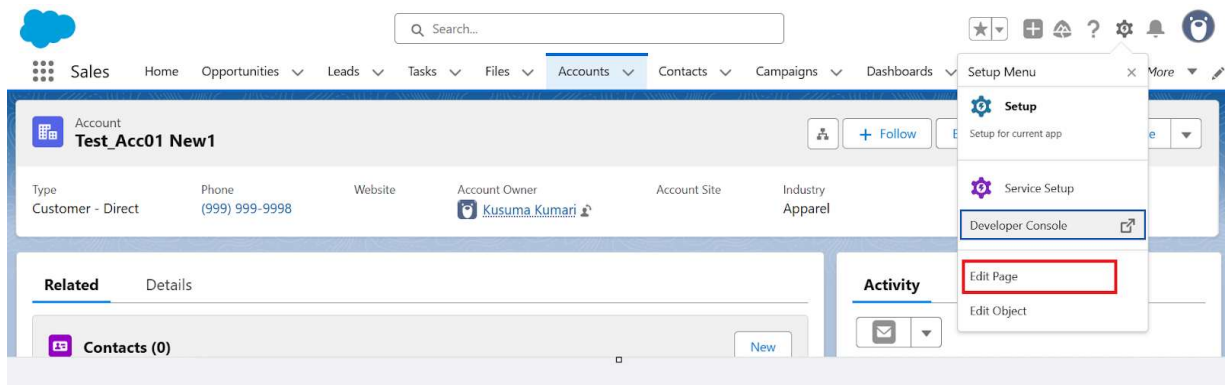
Step 3: Scroll down to **relatedList** in the component section.

Step 4: Drag the component and add it to the related tab.

Step 6: Activate the page and **save** the changes.

Step 7: Open the record, you can see History of the record below:

How to get a consolidated view/ report of History records

Switch to the Backup and Restore Section of Field History Tracker Home page:

Jpetto Field History Tracker provides capabilities to run reports or see consolidated history records on a single page within the specified timeline, Object Name and field type they want to filter(All/Non DND/DND).

Here we can further filter the resulting history records based on Name, Object, Field names, Old Value, New Value and allow sorting of column values.

How to Backup the tracked record history to the data source

Jpetto Field History Tracker provides capabilities to back up the tracked history records within the specified timeline to the data source selected in the **Configuration** section of the 'Home' page.

- Go to the Backup and Restore section, provide all the details like Start Date, End Date, Object Name, Fields to display(All/Non DND/DND) that you want to take backup and search for it.
- Click on the Backup option to see the available options. From here, users can Backup, Export and Delete the searched history.

  Backup: Select this option to take a backup of data to the selected data source in the 'Configuration' section. If the data source selected is salesforce then the backup data stores as a standard salesforce file, and can access them from files object.

  Export: Use this option to download the data to the local machine as a **CSV** file.

  Delete: Use this option to permanently delete the selected data from the system.

How to access Old Backup data

Jpetto FHT provides quick access to the old backup data directly on the UI as a data table without switching to the data source.

- Go to the Backup and Restore section and click the **Old Backup** button to see all the backup files.
  Note: Respective backup files are listed here according to the data source selected in the 'Configuration' section of the Home page.
- We can see all backup files in tabular format with columns as File Name, Preview, Download, and Delete.

  File Name: The file name of a backup file stored in the data source.
  Preview: From here users can directly preview the backup file data as a data table with columns such as Name, Id, Object, Field, Old Value, New Value, Timestamp and User.
  Download: From here, users can download the data to the local machine as a csv file.
  Delete: Deletes the backup file from the list.

How to schedule a batch class for timely backup to data source

With Jpetto FHT, admins can schedule a batch class for timely backup to the data source selected in the **Configuration** section of the 'Home' page.

- Go to the 'Configuration' section and click on the Schedule New Backup button.
- Select one of the options from the list below to specify the number of days you want to backup with the schedule and click **Save**.
    - Last 30 Days
    - Last 3 Months
    - Last 6 Months
    - Last 1 Year
    - Older than 30 Days
    - Older than 3 Months
    - Older than 6 Months
    - Older than 1 Year
    - Older than 10 days
    - All Time
- After changes are saved, you can see the schedules in tabular format with columns as SObject, Last N Days, Active Status, Previous Schedule Run, Next Schedule Run, Schedule, Abort, Edit, and Delete.
    - **SObject:** Object selected in Backup and Restore section.
    - **Last N Days:** Number of days selected in the earlier step.
    - **Active Status:** Shows the current status of schedule.
    - **Previous Schedule Run:** Shows when the last schedule ran.
    - **Next Schedule Run:** Shows when the next schedule will run.

Schedule: Select the time slots to schedule the batch class.

Abort: Abort the scheduled backup from here.

Edit: Modify the current schedule for the next run and temporarily disable the schedule from here.

Delete: Delete the schedule if no longer needed.

Steps to integrate Google Drive with FHT as a data source

Step 1: Create a Google Cloud Project

1. Sign in to the Google Cloud Console
2. Create a New Project:
   - Click on **Select a Project** on the top left corner.
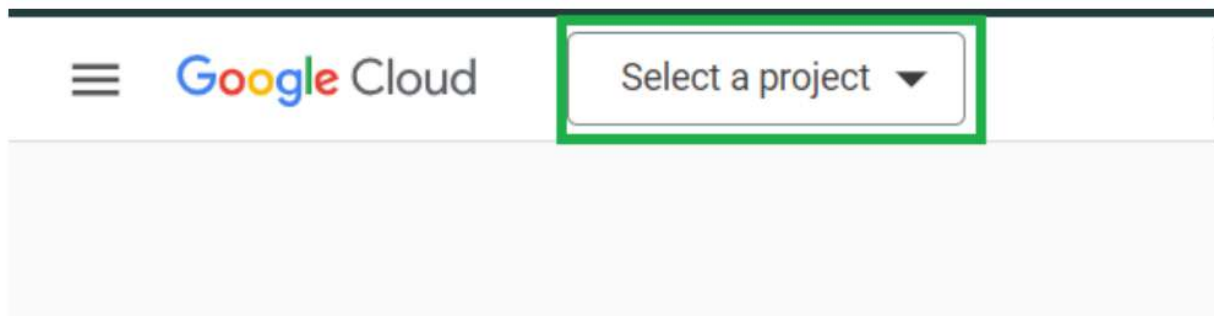
   - This will open all projects listed for your account. If you are part of any organization then you can see projects assigned to you under the organization section. Now to create a new project, click on **NEW PROJECT**.

   - Once you select New Project a new page will open asking for project details. Fill in the details and click on **Create**.
      Project Name: Give a name to your project
      Organization: Optional

**Location:** Optional

New Project

⚠ You have 12 projects remaining in your quota. Request an increase or delete projects. Learn more ☑

Manage Quotas ☑

Project name *
My Project 88111   ⓘ

Project ID: decoded-keel-452217-v7. It cannot be changed later.   Edit

Organization *
No organization   ▼

Select an organization to attach it to a project. This selection can't be changed later.

Location *
                                                              Browse
Parent organization or folder

Create   Cancel

Step 2: Enable APIs

1. Select your newly created project.
2. From the navigation menu on the left side, click on **APIs & Services** and then **Library**.
3. Search for the **Google Drive API** on the search bar.
4. Click on the **Google Drive API** and **Enable** it.

Step 3: Configure the OAuth Consent Screen

1. Select the **APIs & Services** and then **OAuth Consent Screen** from the left-hand side navigation menu.
2. Select the user type:

   You can select the **Internal** user type only if your project belongs to an organization and the connector users are members of the same organization.

   The **External** user type causes the authentication to expire in seven days. If you choose this type, you need to renew authentication weekly.
3. Click on **Create**.
4. To fill out the form, provide the following information:

   App name: Give a name to your app.

   User support email: your email address

      Developer contact information: your email address

      Logo: Optional

5. Click **Save & Continue**.

6. If you have any scopes, add under **Add or Remove Scopes**; else skip this step.

7. If the 'User Type' is selected as **External** then add test users as per the path below:

   Test Users ⇒ Add Users ⇒ Enter the email addresses of users that are allowed to use the connector ⇒ Add

8. Click on **Save & Continue** and then **Back to Dashboard**.

Step 4: Create Credentials

1. Select the APIs & Services and then **Credentials** from the left-hand side navigation menu.

2. Click on **+Click Credentials** and select **OAuth Client ID**.

3. Select the application type (Ex: Web Application, Android, ios).

   - If the type selected is **Web Application**, enter **Name** and specify the **Authorized redirect URIs**.

4. Click on **Create**.

Step 5: Obtain Client ID and Client Secret

1. With the creation of credentials, a pop-up window will appear with **Client ID** and **Client Secret**.

2. Copy and save them securely for later use.

3. Click on **Ok**.

Step 6: Create Auth. Providers

1. Login to the salesforce org where the FHT package was installed.

2. Go to **Setup ⇒ Identity ⇒ Auth. Providers ⇒ New**.

3. In the Provider Type field, select **Open ID Connect** from the drop-down.
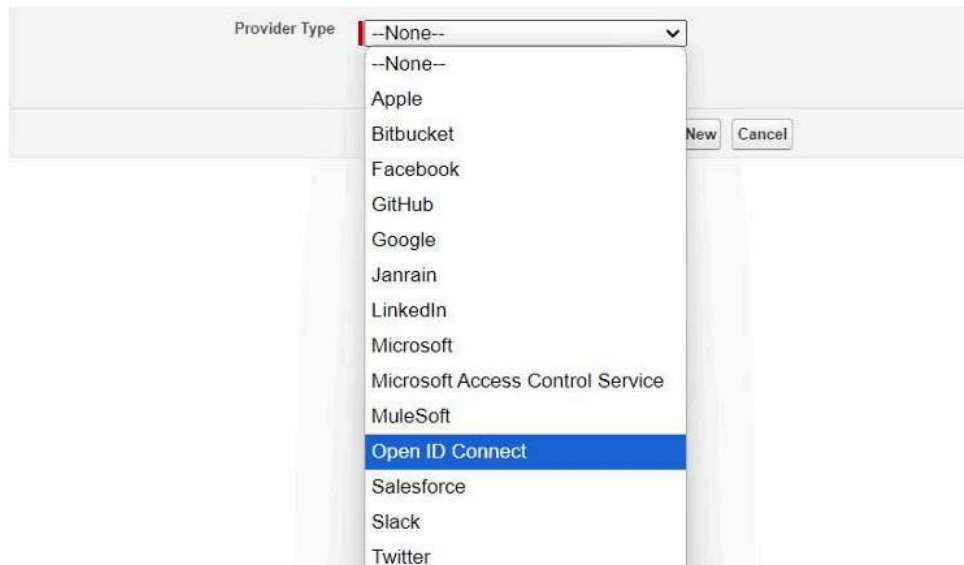
4. Fill the form and add the

   Consumer Key and Consumer Secret fields: Client ID and Client Secret values
   received from "Step 5: Obtain Client ID and Client Secret"

   Authorize Endpoint URL:
   https://accounts.google.com/o/oauth2/auth?access_type=offline&approval_prompt=force

   Token Endpoint URL: https://accounts.google.com/o/oauth2/token

   Default Scopes: https://www.googleapis.com/auth/drive

5. Click on **Save**.

Step 7: Create Named Credentials

1. Go to Setup ⇒ Security ⇒ Named Credentials ⇒ New Legacy.

2. Fill in the details below:

   Label: GoogleDrive_t

   Name: GoogleDrive_t

   URL: https://www.googleapis.com/

   Authentication

   Identity Type: Named Principal

   Authentication Protocol: OAuth 2.0

   Authentication Provider: Select Auth. Provider created in **Step 6: Create Auth. Providers**

   Start Authentication Flow on Save: Active

3. Click on **Save**.