“Code Coverage Manager” from Infosys

Work Instructions

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Work Instructions

Applies to:	Salesforce practitioners
Objective:	**This document provides work instructions for installing** “Code Coverage Manager” **application from Infosys**
Policy or Handbook Reference	**N/A**
Prerequisites	**N/A**

Introduction

This document provides step-by-step instructions for installing “Code Coverage Manager” application from Infosys.

Goals

Track Code coverage of components and assist for easy reporting.

Scope

Salesforce CRM Platform Sandboxes

What’s New

The current version on Code Coverage manager application has been enhanced with below new features:

- An option is available to include flow components, allowing users to check coverage for flows.
- Code coverage results now include previous coverage, component modified date and user who modified it.
- Improved security and error handling
- The 1000 test methods execution limit has been overcome with a new logic of rescheduling based on the number of test classes under execution.
- An option to include the email addresses in CC while sending coverage email.
- Code coverage results emails are enriched with coverage and error details sent as attachments.
- In excel export; the components are grouped by coverage with color-coding. The components are attached with hyperlinks for easy navigation to the salesforce instance.
- Option to delete connection and component group.
- Option to select all component with ‘Export all’ check box on ‘Extract code coverage’ tab

- Functionality for the archival of components with ‘Retention Settings’

“Code Coverage Manager” from Infosys

Work Instructions

Work Instructions

Step	Instruction	Illustration	Expected Result
1	Install the package from the AppExchange listing.	1a, 1b, 2, & 3	Installation is successfully completed.

Figure 1a:

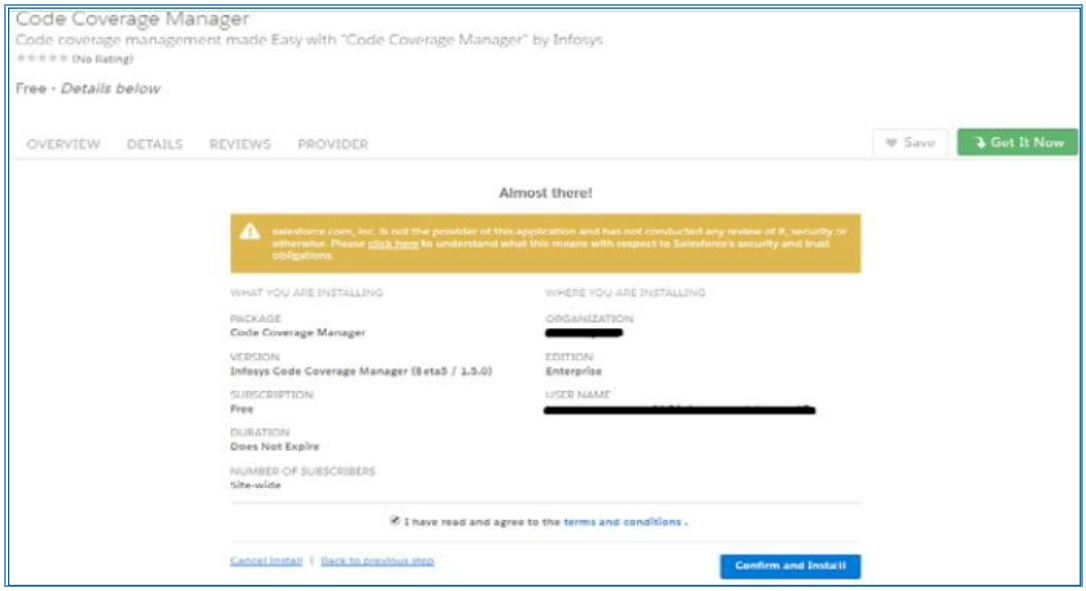


Figure 1b:

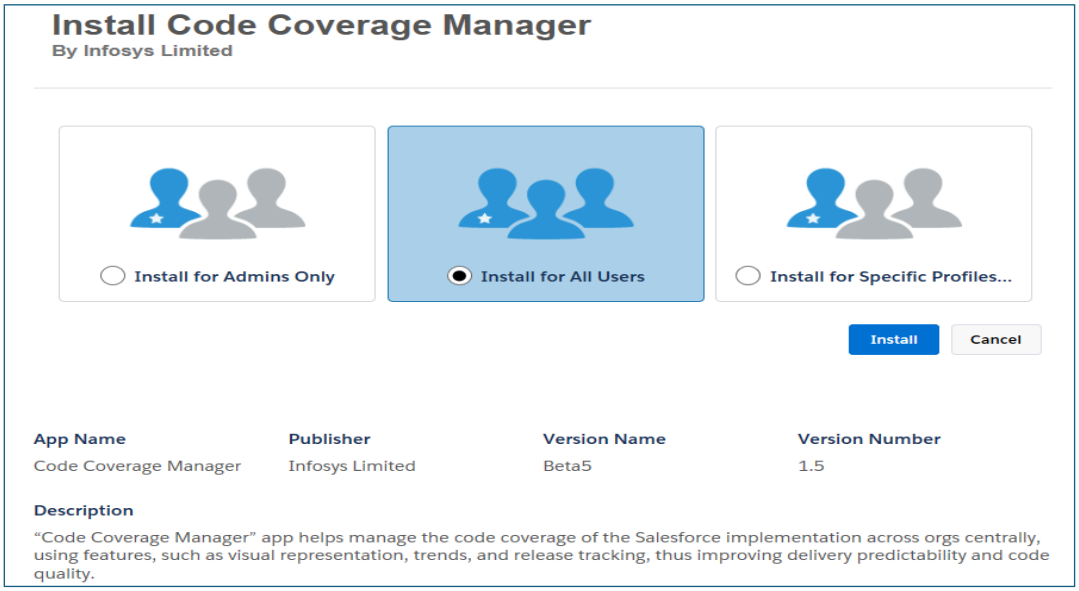

Install Code Coverage Manager
By Infosys Limited
Install for Admins Only
Install for All Users
Install for Specific Profiles...
Install
Cancel
App Name
Code Coverage Manager
Publisher
Infosys Limited
Version Name
Beta5
Version Number
1.5
Description
“Code Coverage Manager” app helps manage the code coverage of the Salesforce implementation across orgs centrally, using features, such as visual representation, trends, and release tracking, thus improving delivery predictability and code quality.

Figure 2:

“Code Coverage Manager” from Infosys

Work Instructions

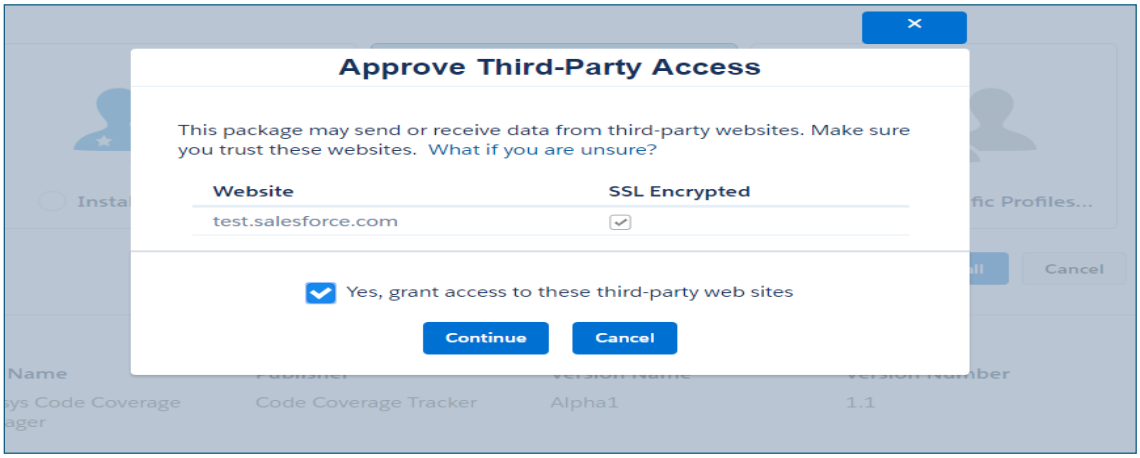
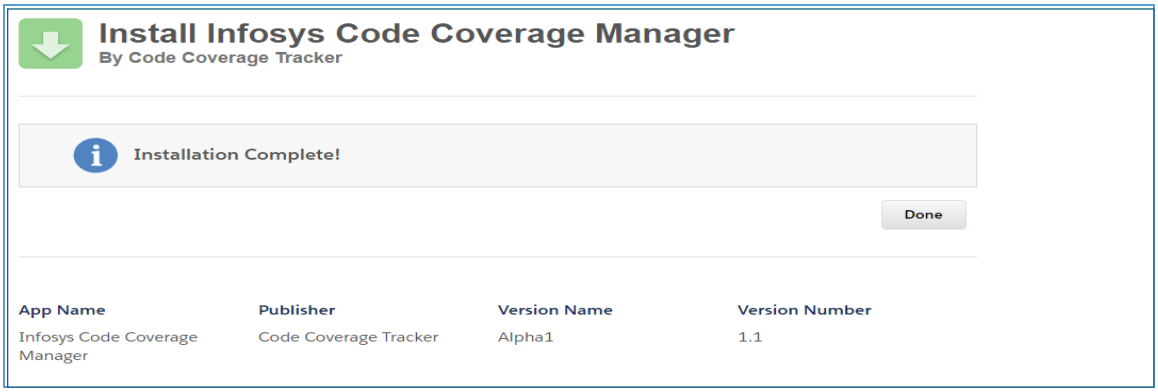
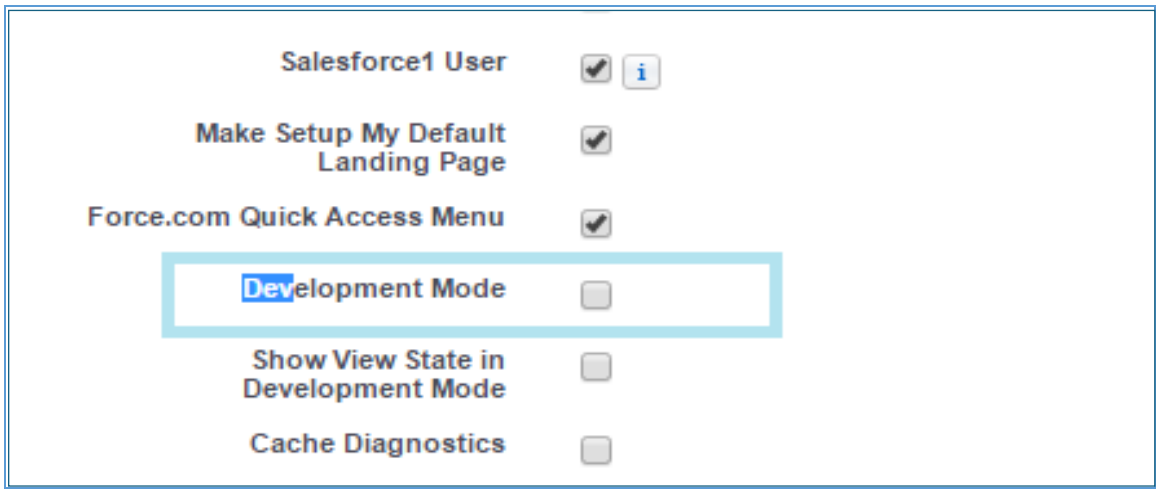


Figure 3:



Step	Instruction	Illustration	Expected Result
2	Ensure that the Development mode is turned off for the user profile ***Tip:*** *Click on your name on top right corner -> Go to My Settings-> Personal -> Advance user details -> Uncheck Development Mode*	Go to User Profile and remove the checkbox Please refer to figure 4	N/A

Figure 4:



Step	Instruction	Illustration	Expected Result
3	Add users to the permission set to access ‘Code coverage Manager’ application. Permission Set Name: **“Code Coverage Manager User”** ***Tip:*** *Search for Permission Sets in Quick Find box under the Setup tab -> Click on “Code Coverage Manager User” ->Manage Assignments - > Add users to the permission set*	Please refer to figure 5 & 6	User is able to access “Code Coverage Manager” application.

Figure 5:

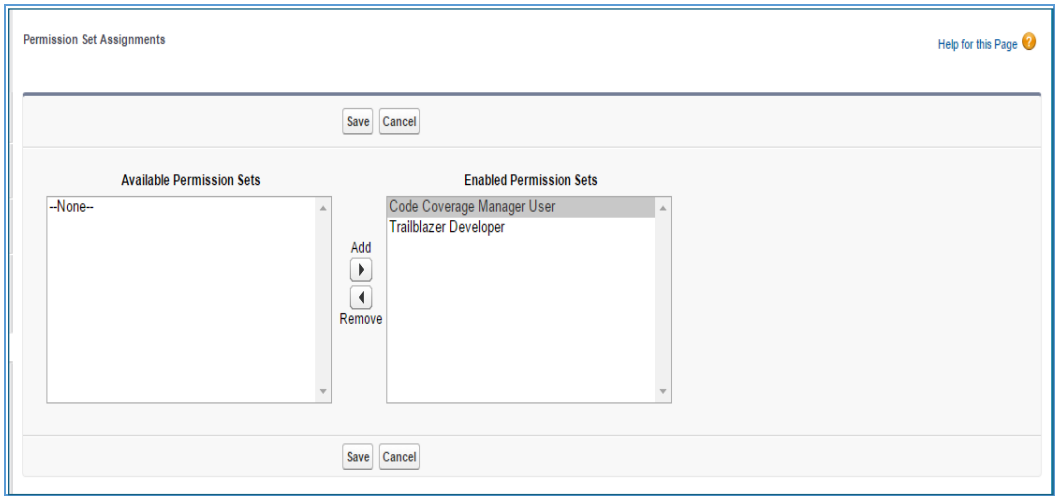
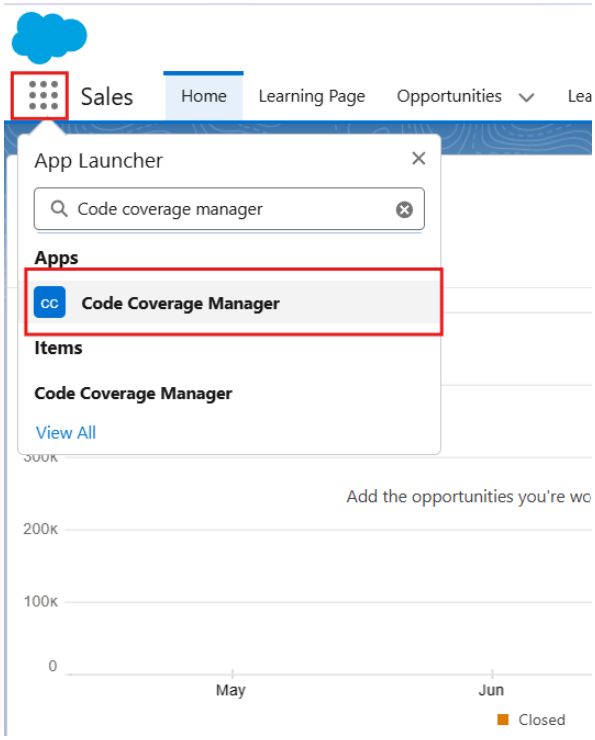


Figure 6:



Step	Instruction	Illustration	Expected Result
4	Configure External Client App in the remote instance and connect it to the secured endpoints through named external credential’s in the current instance.	Please refer to figure 7(a – f) Please refer to figure 8(a – i)	The new entry is created under “External Client App” section under Apps page for remote instance (where the app needs to connect). Configure Secured Endpoints using External Credentials in current instance (Where the app is installed) using as per the figures shown The application contains 4 tabs: • **Home:** Home Page • **Remote Auth Details:** List of all connected instances • **Add/Modify Remote Auth:** An interface to setup and maintain remote connectivity. To be used as a first step, before measuring code coverage; used normally, as the onetime setup for the instance. • **Code Coverage Manager:** An interface to manage the code coverage. Frequently used tab.

Figure 7a:

Go to External Client App Manager (Remote Org)

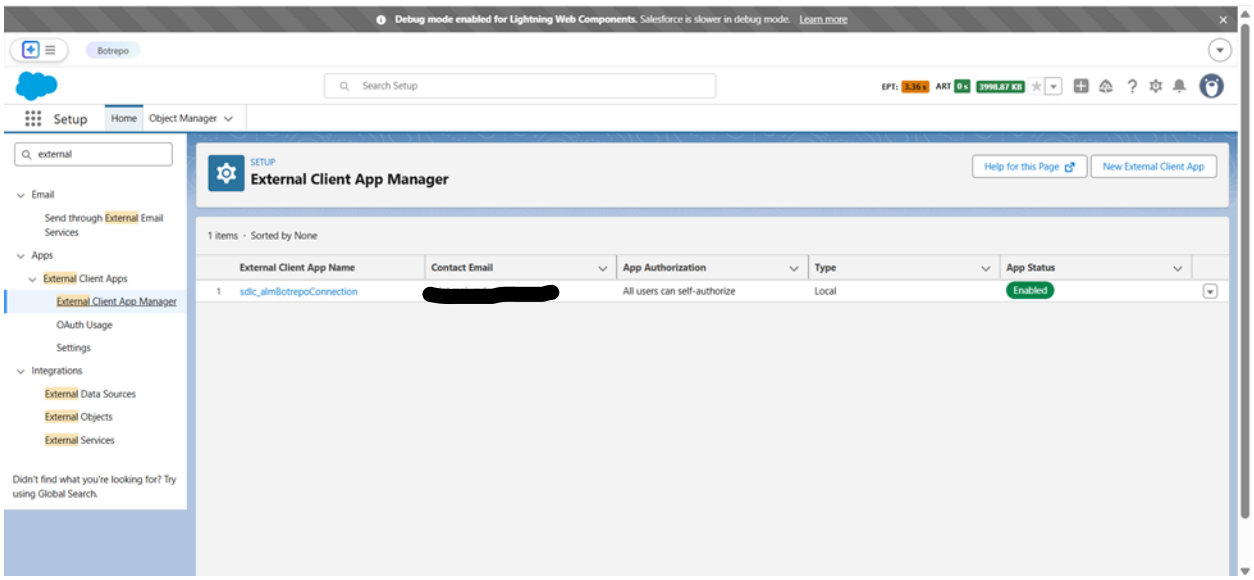


Figure 7b:

Create new External Client app - > Fill Basic Information and Click Save (Remote Org)
Note: Select Distribution State as ‘Local’.

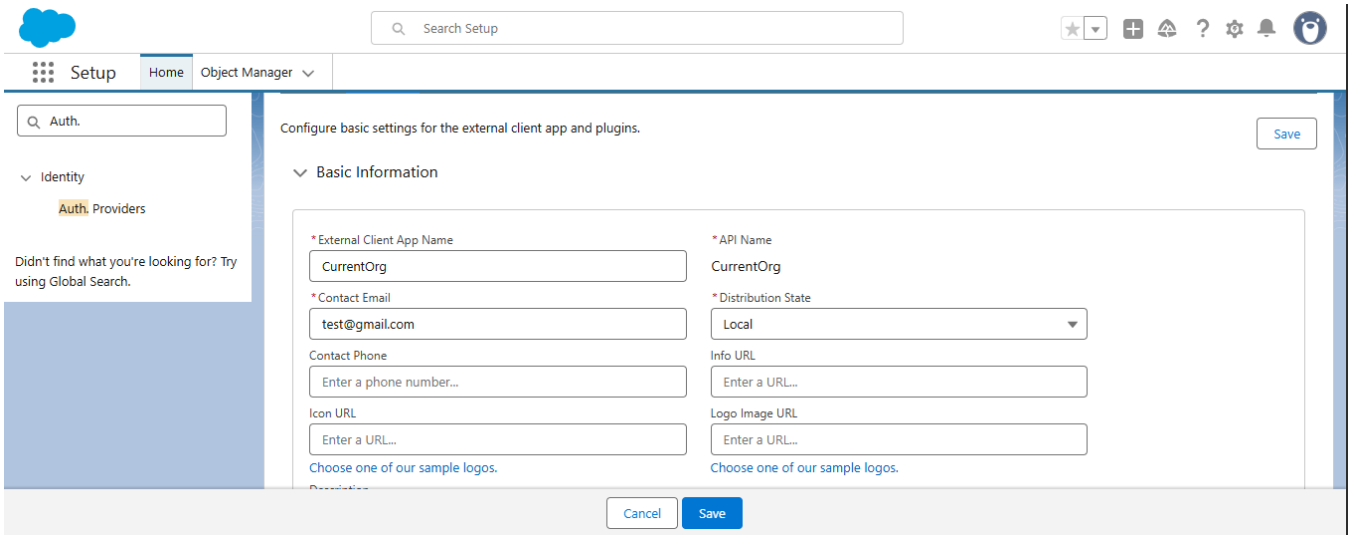


Figure 7c:

Go to Settings Tab and Click on edit (Remote Org)

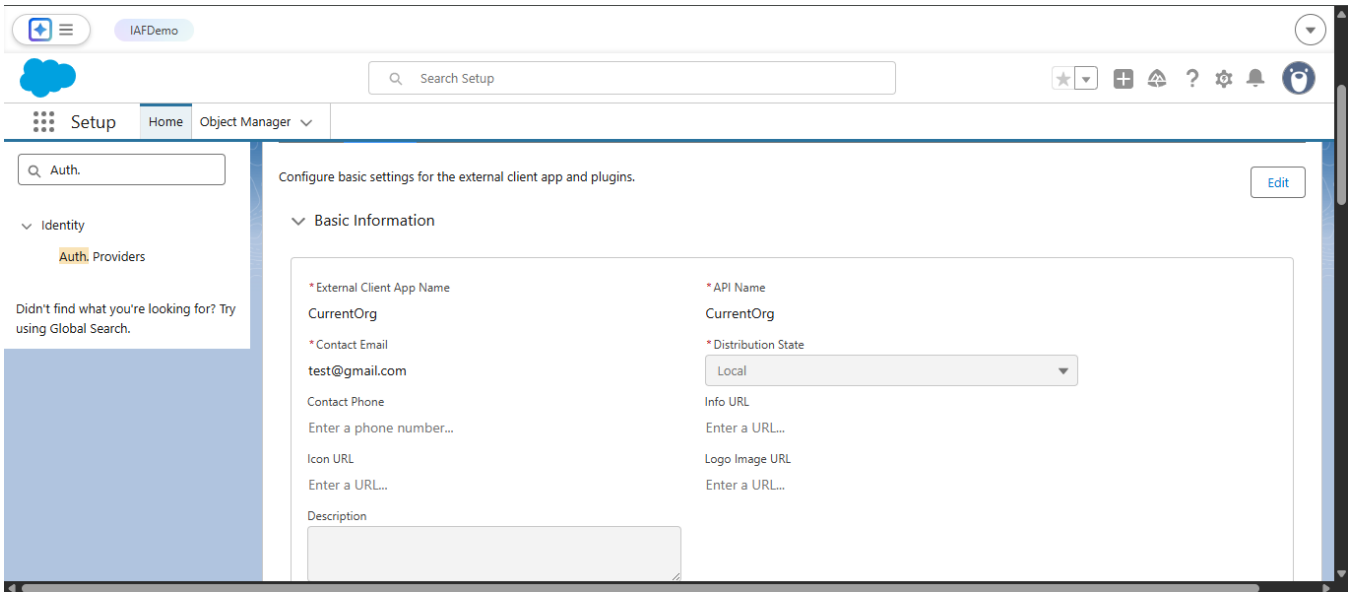


Figure 7d:

Go to OAuth Settings and click on checkbox ‘Enable OAuth’. Provide any Callback url (This will be replaced later) Select Scope As ‘Full Access (full)’ and ‘Perform Request at any time (refresh_token,offline_access)’

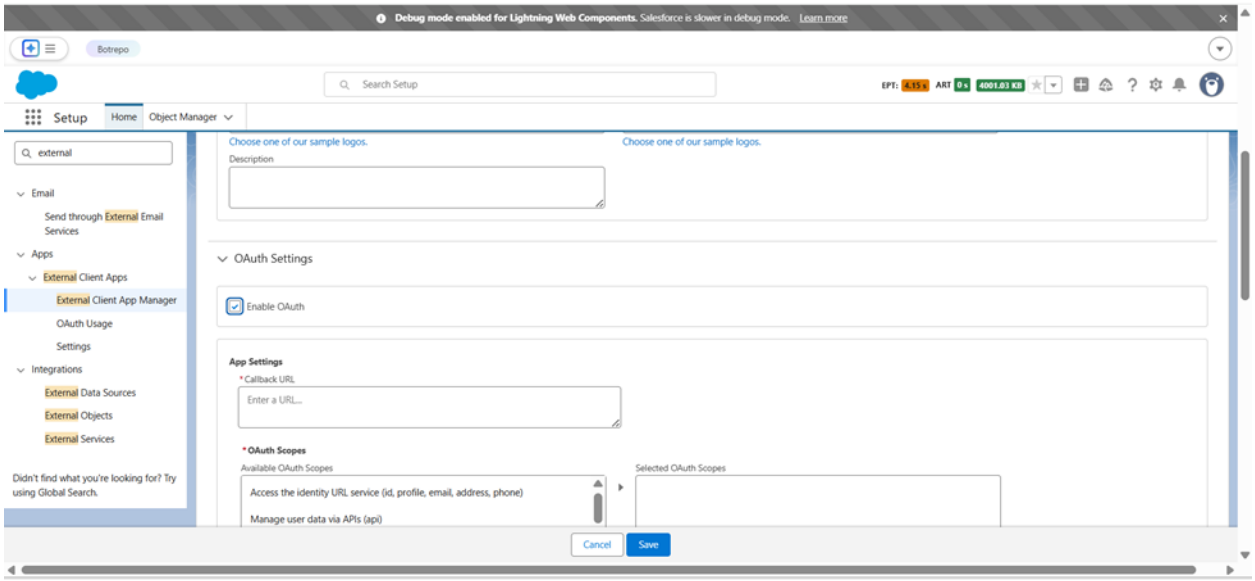


Figure 7e:

Deselect 3rd checkbox in the Security Section and Save

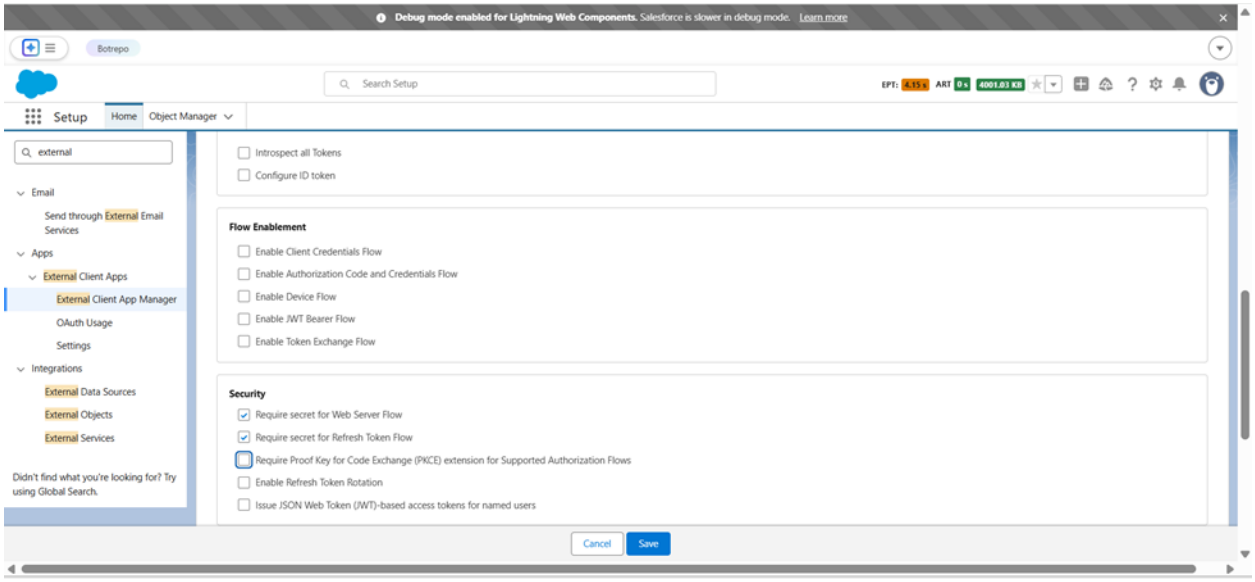


Figure 7f:

Again, go to OAuth Settings -> App Settings - > Click on Consumer Key and Secret to get the Keys

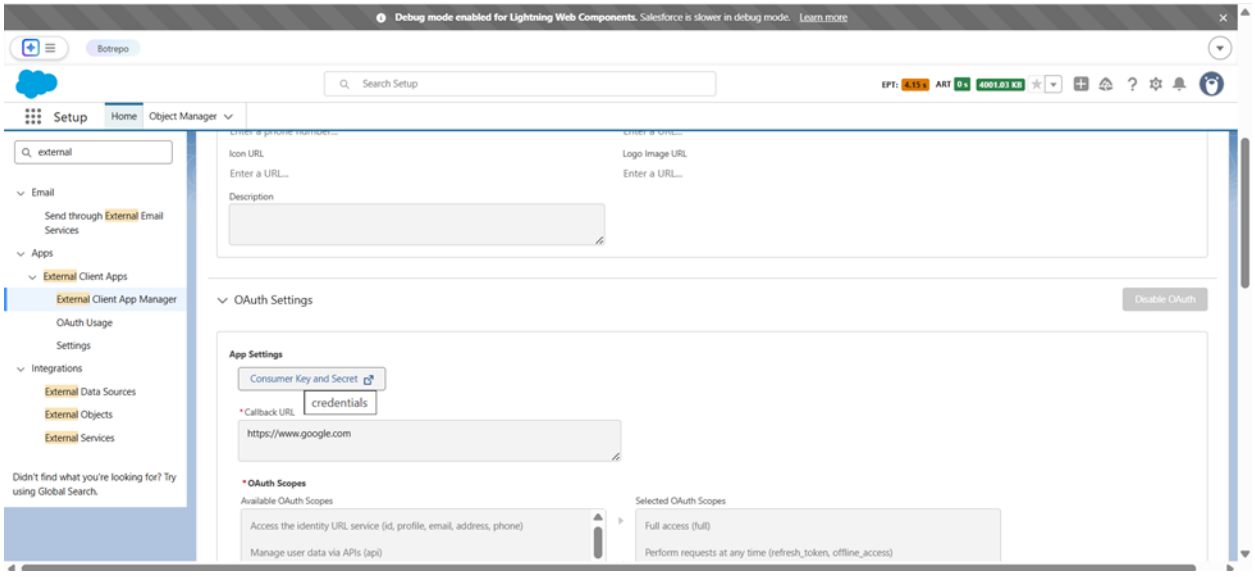


Figure 8a:

In Current Instance (where app is installed), For call URL, go to setup -> Search auth. provider in Quick Find ->

new -> select ‘salesforce’ -> save.

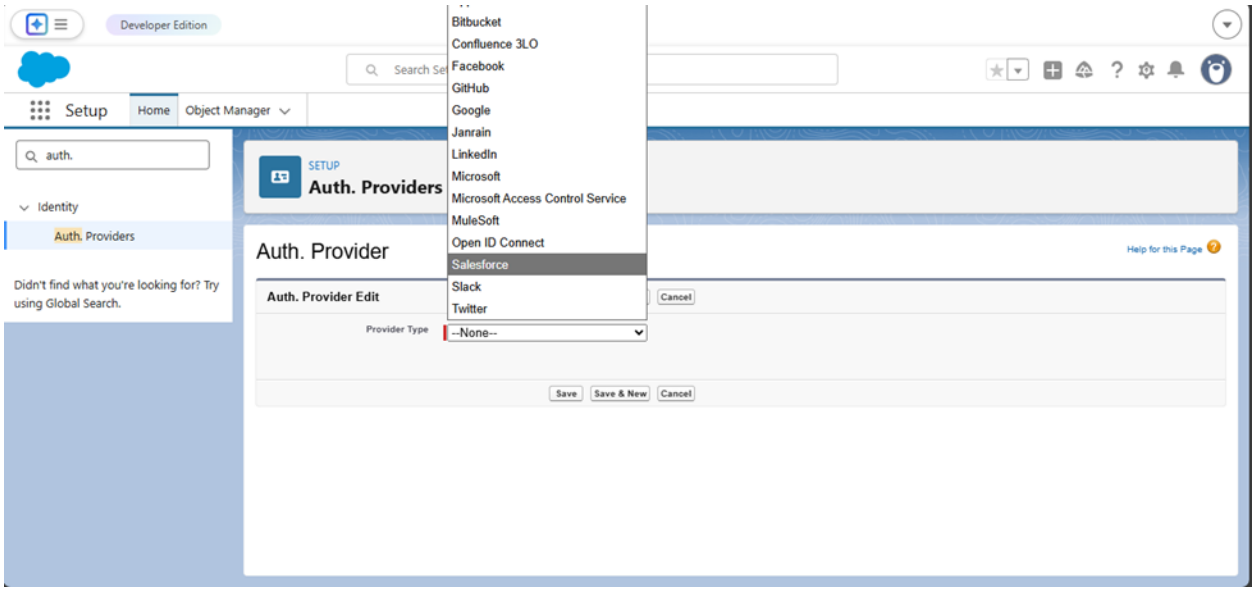


Figure 8b:

Fill in the details below, the consumer key and the consumer secret will be obtained from the external client app.
Note: In Default Scope enter ‘refresh_token full’.

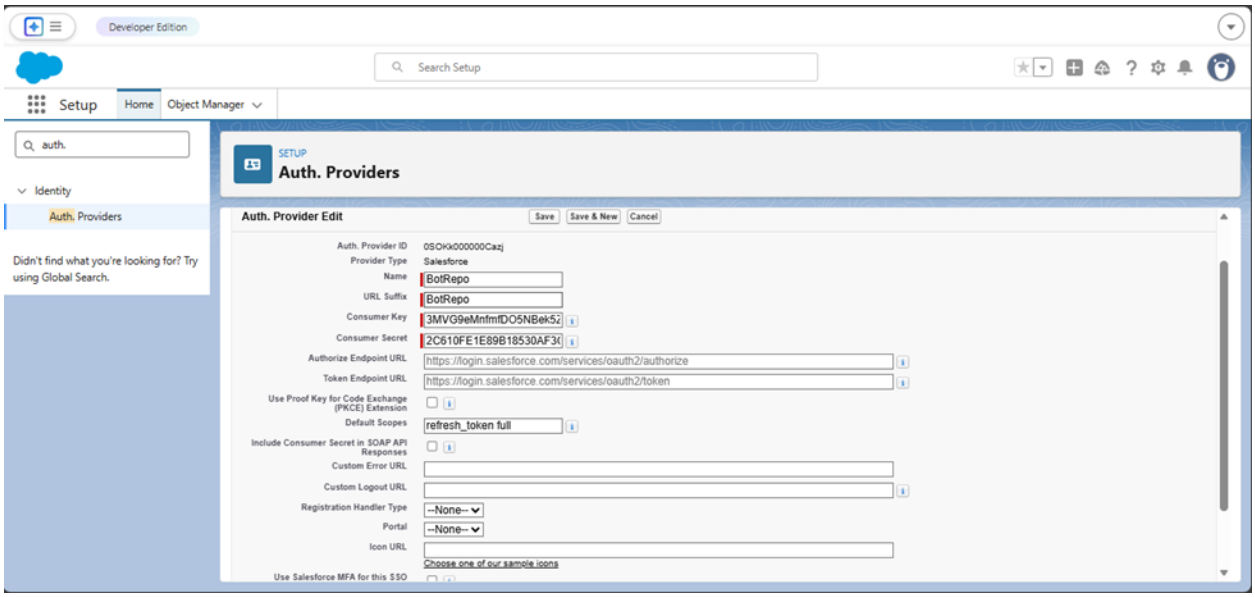
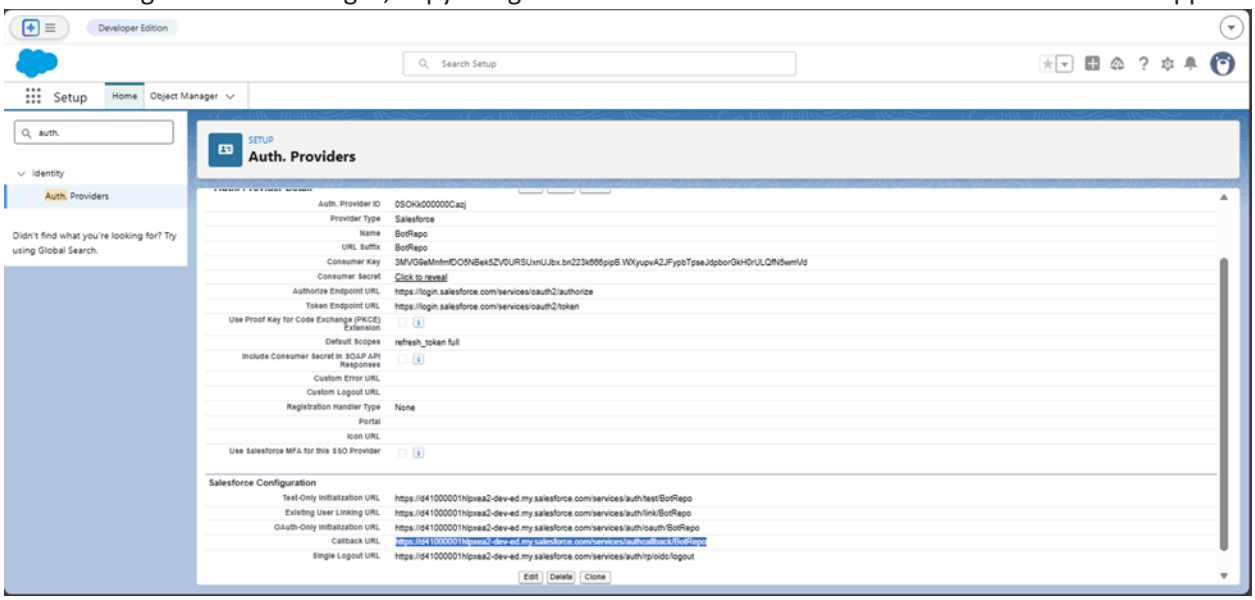


Figure 8c:

After saving the above changes, copy the generated callback url and add it to the external client app.



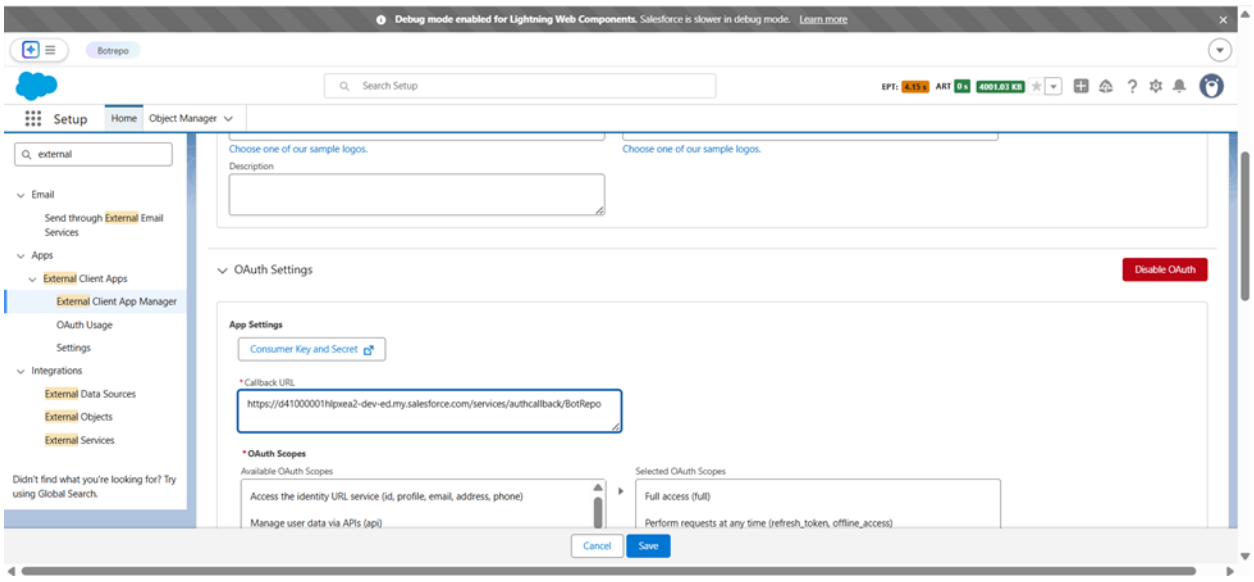


Figure 8d: Configure a named credential with a secured endpoint external credential as per the below figure. (**Current instance).**

Note: In Scope enter ‘refresh_token full’.

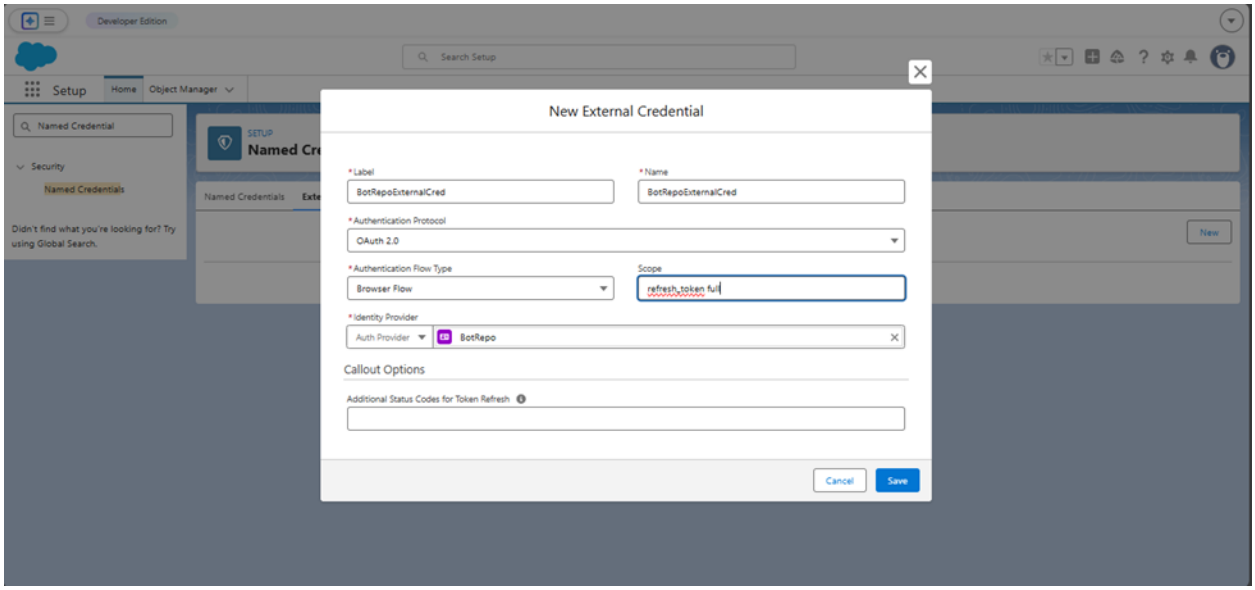


Figure 8e:

Once the external credential is created, add a principal to that external credential as done in the below figure.

Note: In Default Scope enter ‘refresh_token full’.

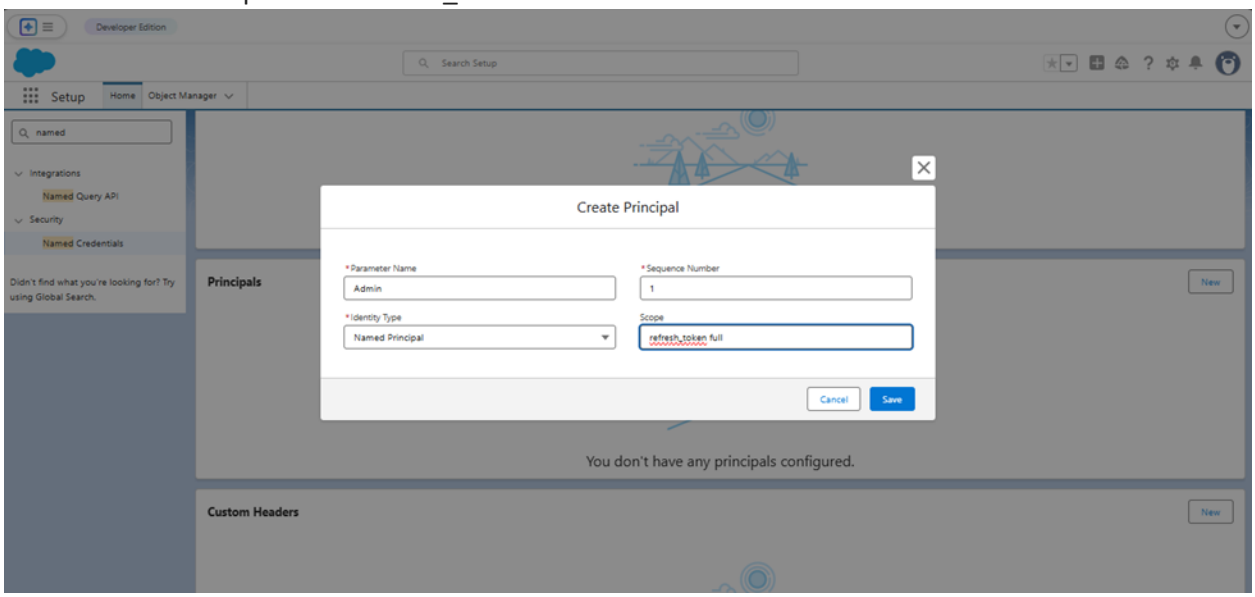


Figure 8f:

After adding the principal to the named credential, add the credential to user profile/ permission set as below.

Click on ‘External Credential Principal Access’->Edit. Create a separate permission set for assigning Named

principal access if necessary and assign to the respective users.

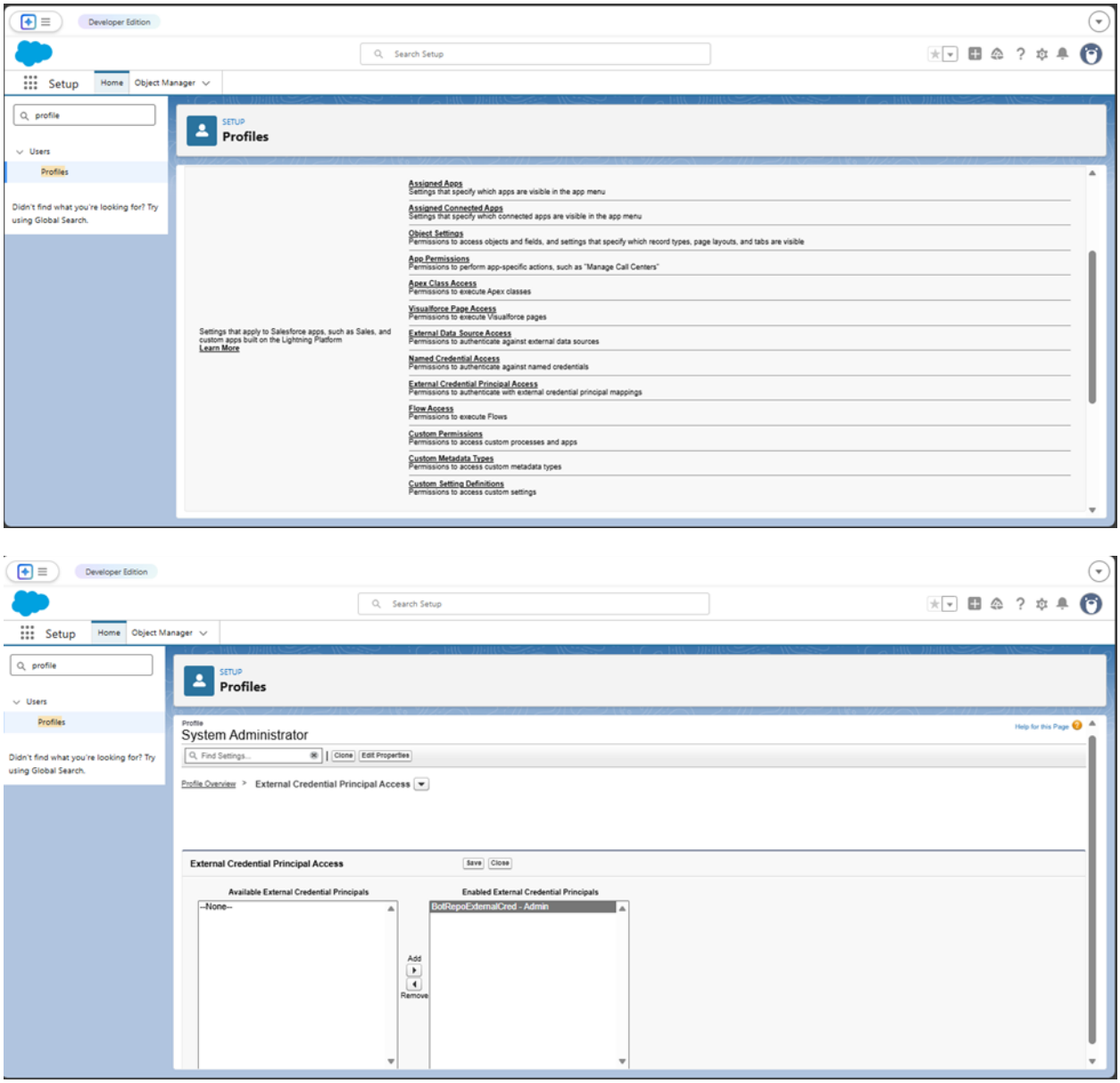
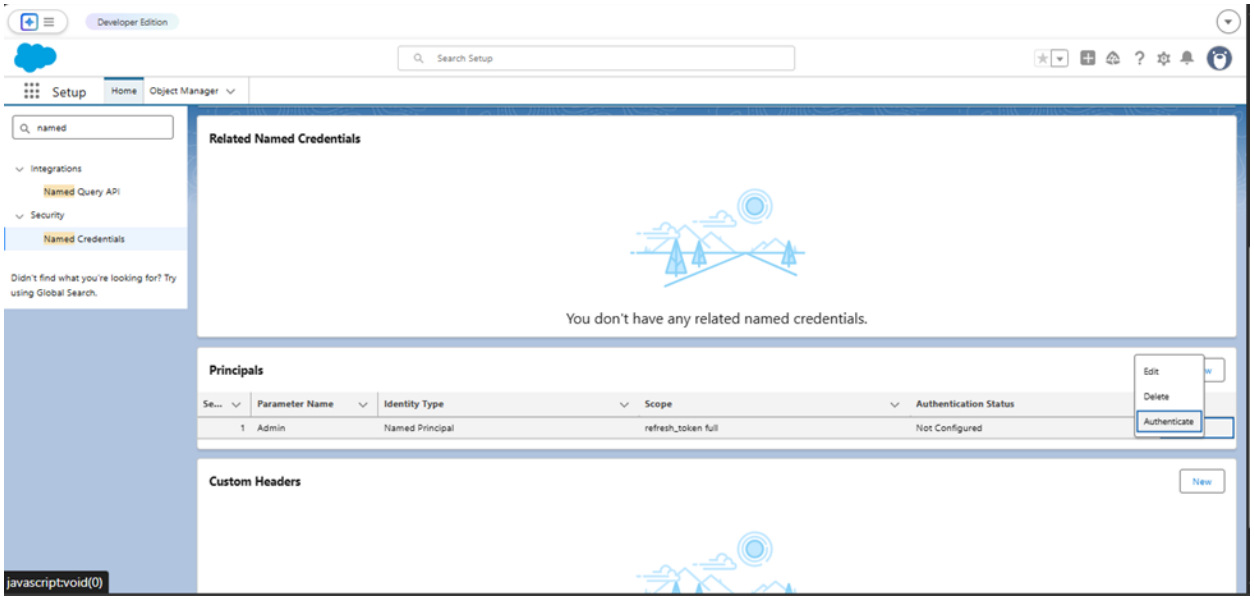
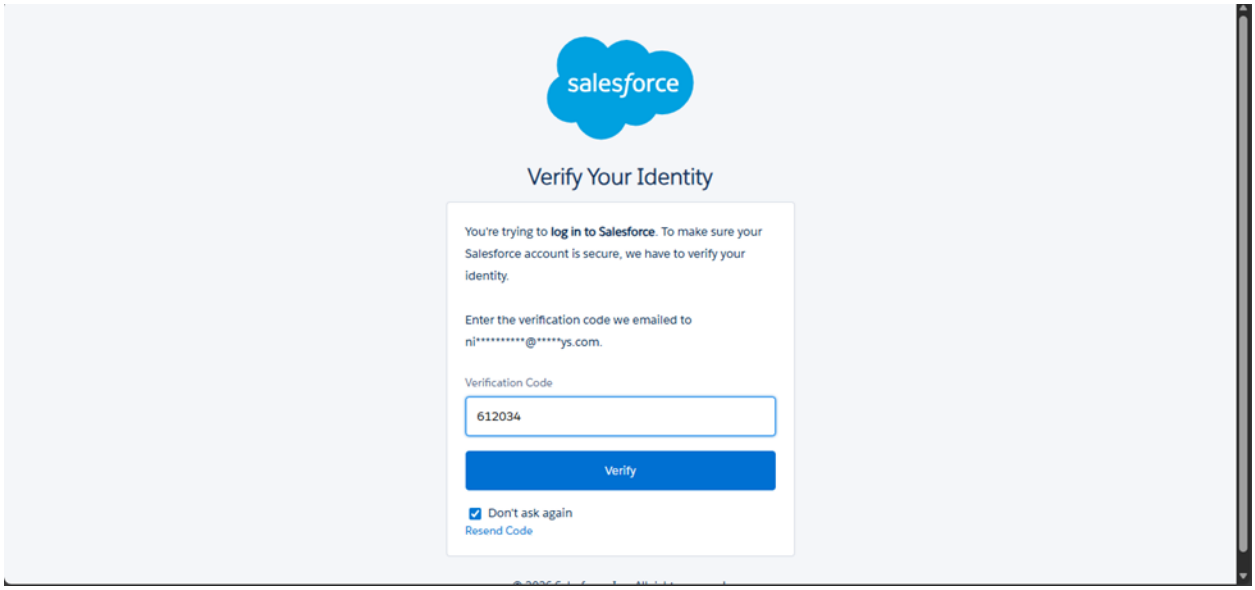


Figure 8g:

After sharing the external credential, authenticate the named principal with the credentials of remote org.





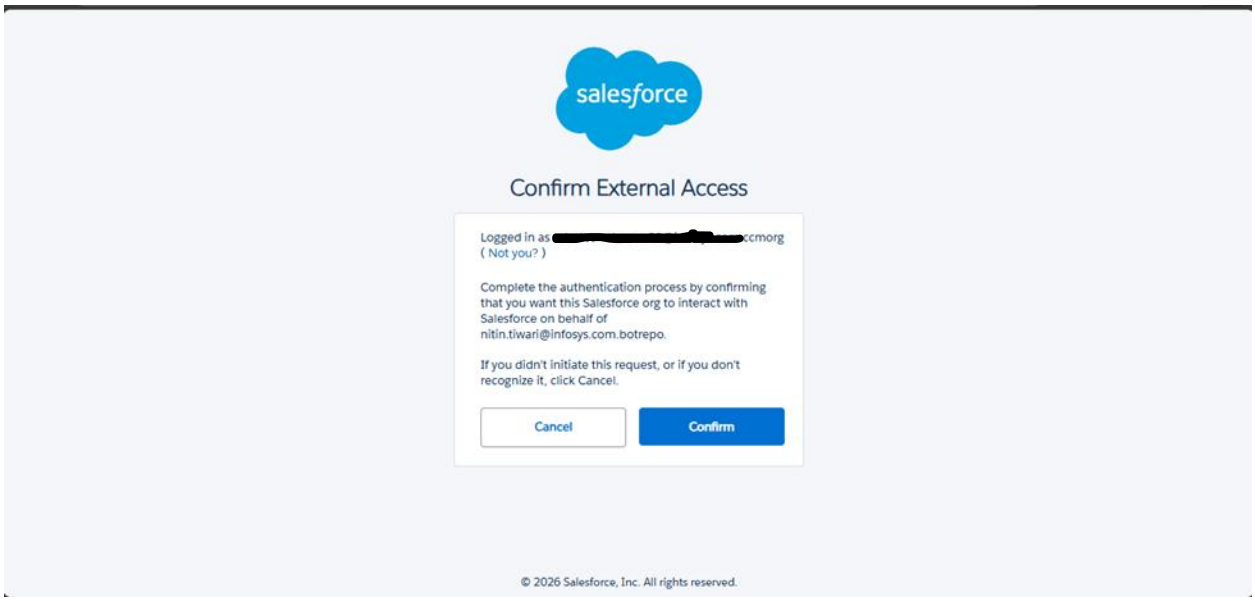


Figure 8h:

After successfully authenticating the named principal, create a named credential with that external credential.

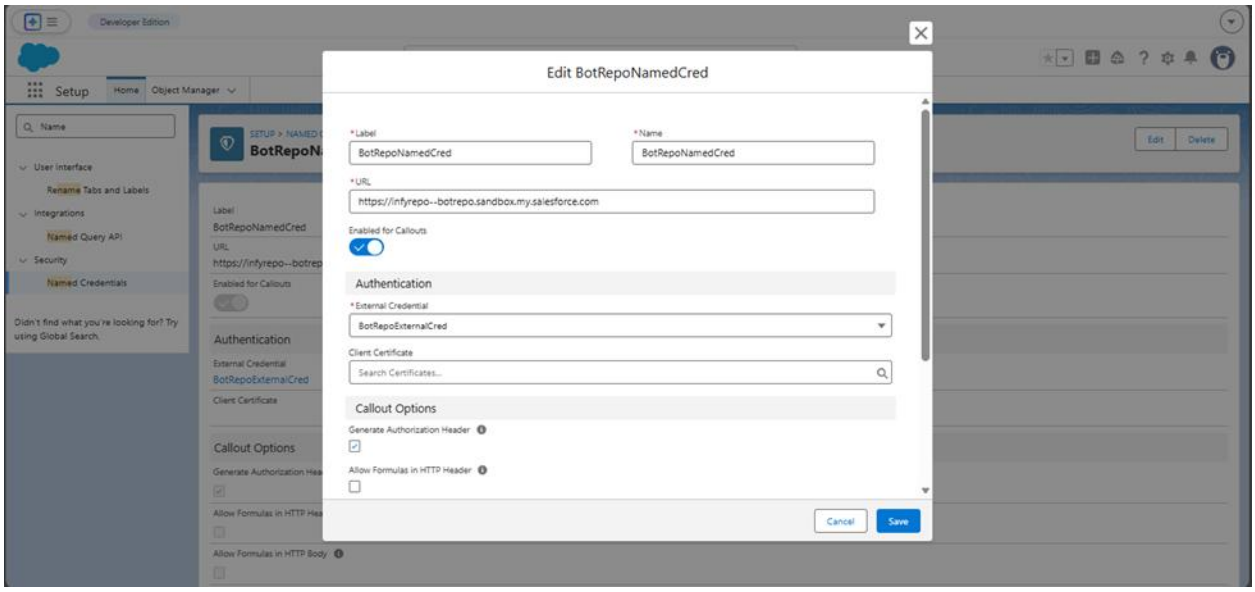
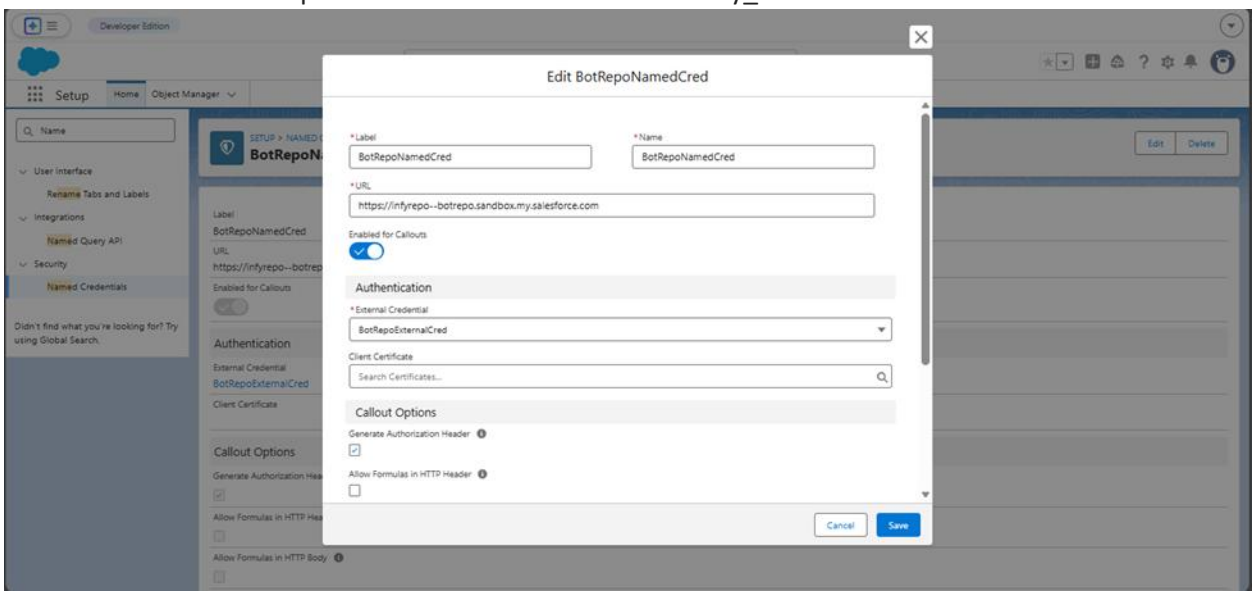


Figure 8i:

After successfully authenticating the named principal, create a named credential with that external credential

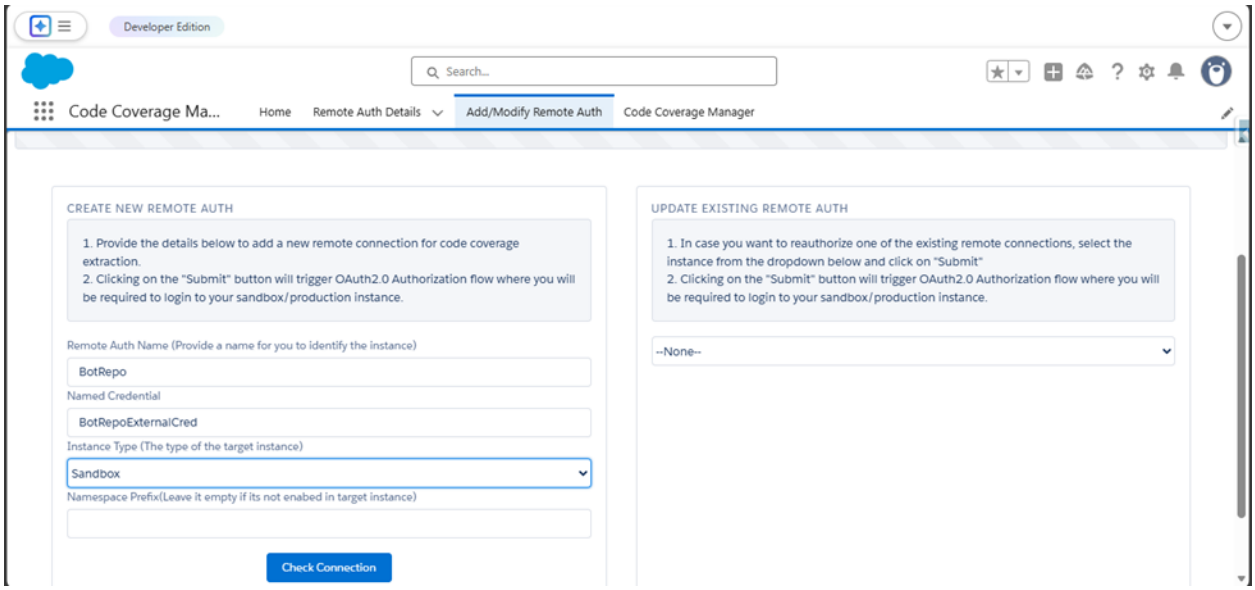
Note: In ‘Allowed Namespaces for Callouts’ field mention ‘infy_cct’.

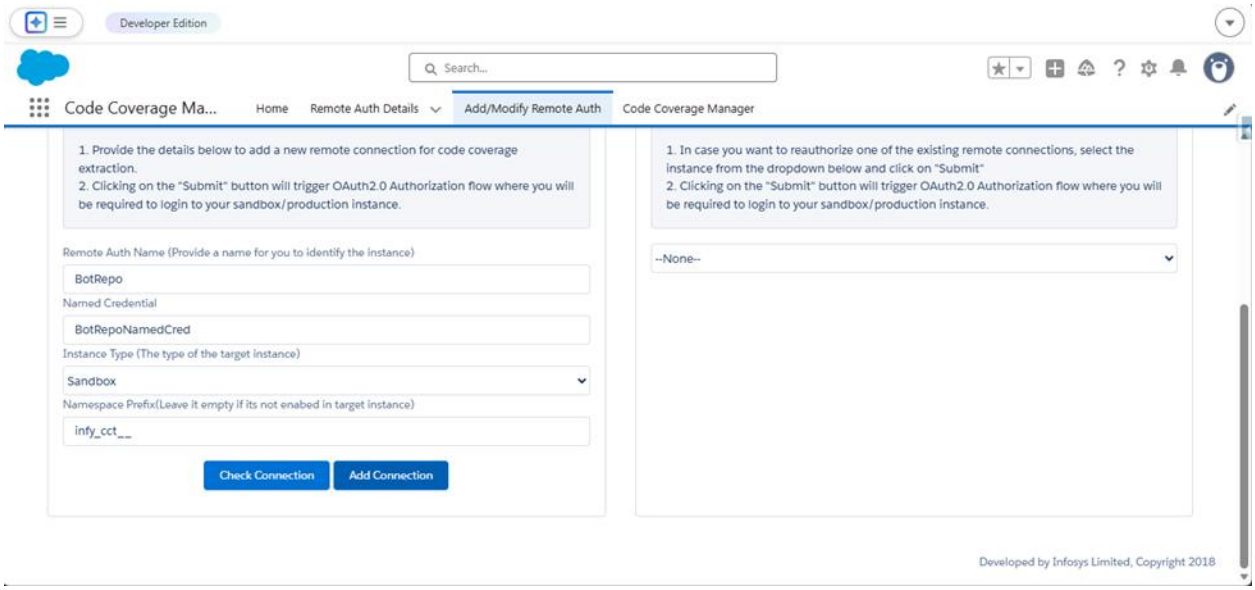


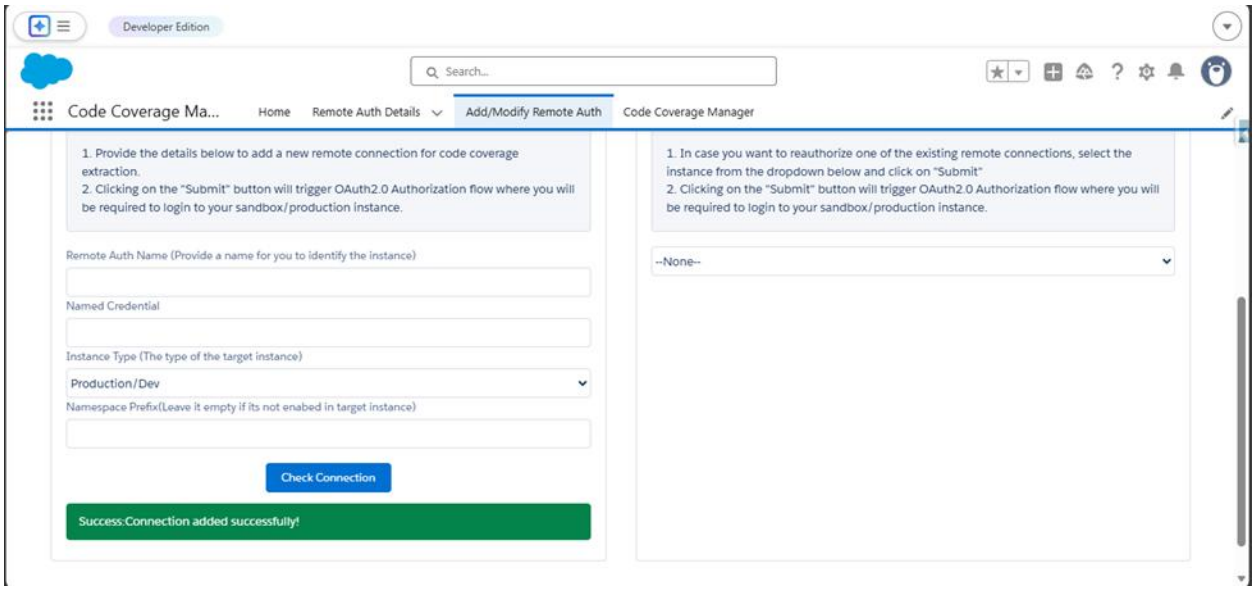
Step	Instruction	Illustration	Expected Result
6	Navigate to “Code Coverage Manager” app Select the “Add/Modify Remote Auth” tab. 1. Add a Remote Org ○ **Remote Auth Name**: Provide a meaningful name to identify the connection (for e.g. “My_UAT_Instance”) 2. **Namespace Prefix:** If Namespace is enabled in the target org, then the same needs to be provided, else keep it blank. 3. **Named Credential:** Provide the named credential created for the external client app.	Please refer to figure 9	• Upon saving the record, navigate back to “Remote Auth Details” tab, under the “Code Coverage Manager” application. • Confirm that the new “Remote Auth”entry is created. • Provides credentials Login of the org to which authentication needs to be obtained (i.e. the org for which code coverage needs to be measured); • Upon successful authentication, the newly connected

	4. **Instance Type:** Provide selection on whether Sandbox or production		instance will be included in the instance dropdown list, and the landing page will be displayed.

Figure 9:

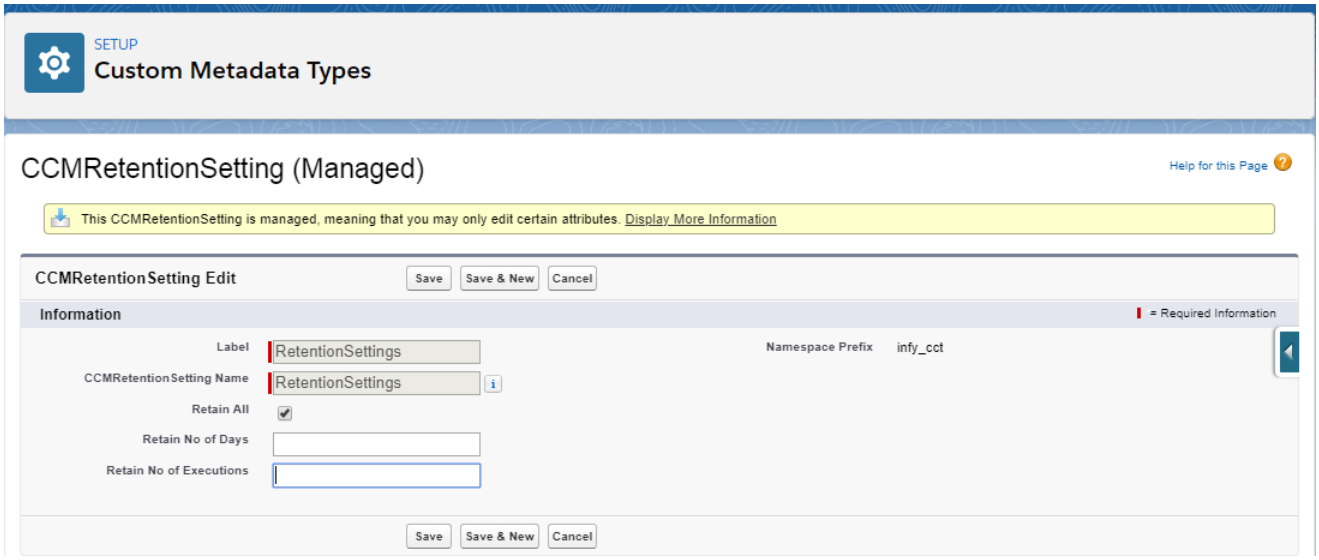






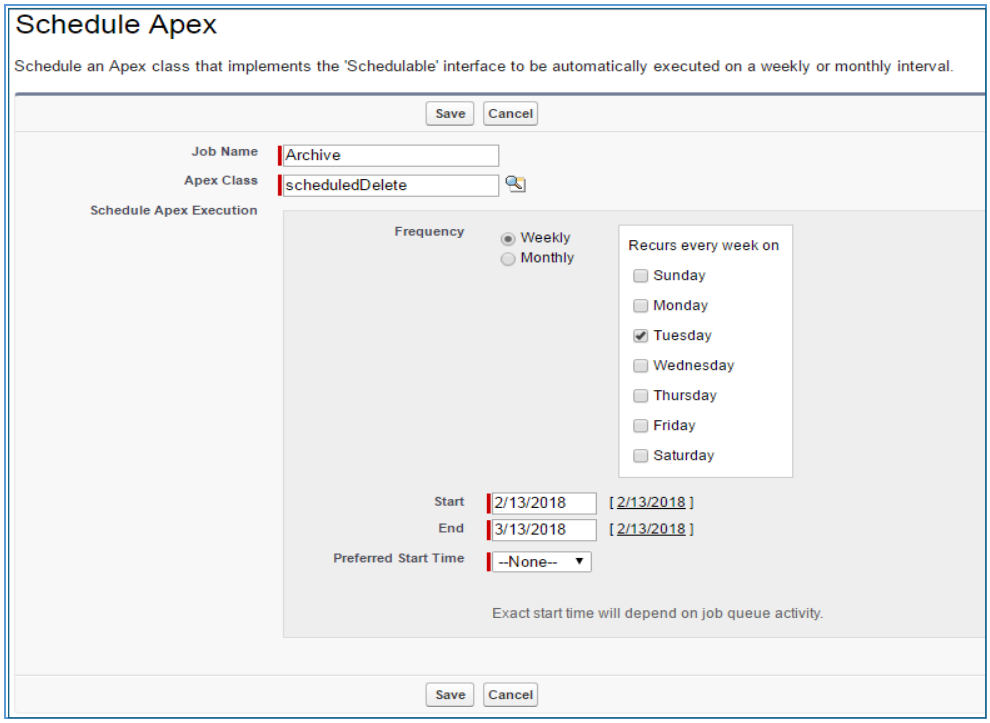
Step	Instruction	Illustration	Expected Result
7	Configure Retention Settings in Custom MetaData Type **CCMRetentionSetting.** **Step 1:** Navigate to Setup->Develop->Custom Metadata Types or Search for Custom Metadata Type in Quick Search **Step2:** Click on Manage Records for Label “CCMRetentionSetting” **Step 3:** Click on Edit for CCMRetiontionSetting **Step 4:** Configure as per below options for data retention. Different setting in this custom metadata type defines time duration for which code coverage data needs to be retained**.** - **RetainAll** : Settings where all code coverage data would be retained - **Retain No of Days :** Retains code covergae data for **x** number of days as per configuration - **Retain No of Executions :** Retains latest code covergae data for **x** number of executions as per configuration At a given time, only one retention setting would be active	Please refer to figure 10	NA

Figure 10:



Step	Instruction	Illustration	Expected Result
8	Schedule Apex Class “ ScheduledDelete” as per requirement for deletion of target org and component group.	Please refer to figure 11	This Apex Class is required to pick up and delete component groups and target instances, which are marked for deletion.

Figure 11:



This completes the installation of the application. The next section provides information about the user navigation features of the application.

“Code Coverage Manager” from Infosys

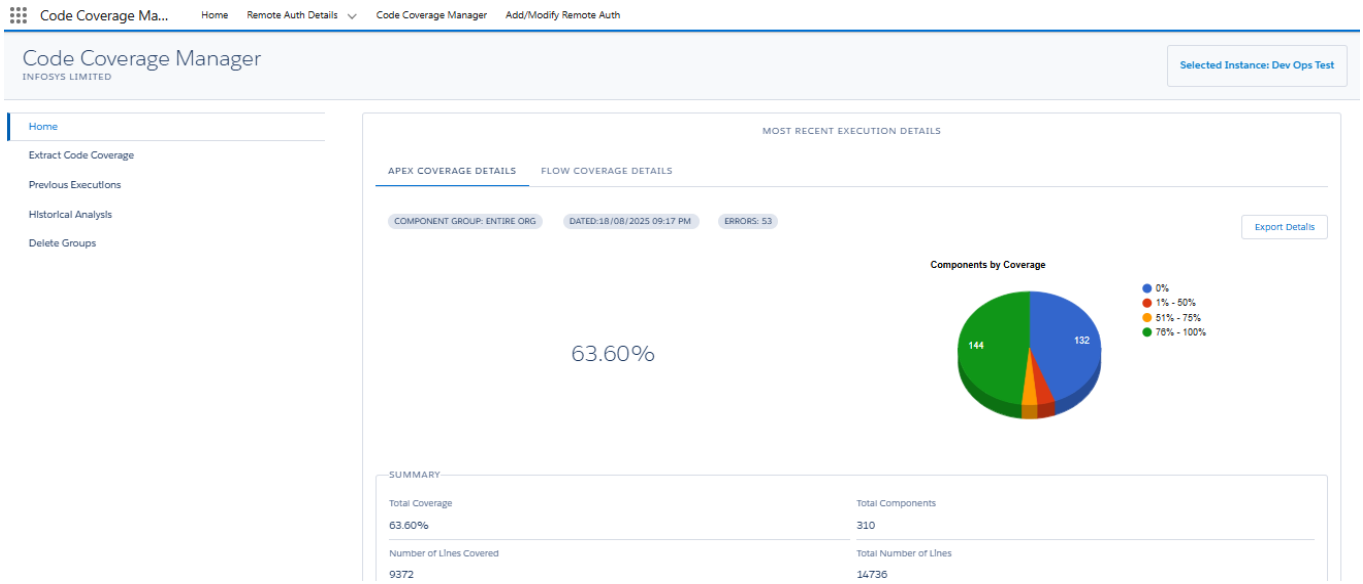
Work Instructions

User Manual

Step	Instruction	Illustration	Expected Result
1	App Setup : Perform the following steps prior to using the application : - Setup authentication to the target instance (for which code coverage needs to be measured) first, using “Add/ Modify Remote” tab - Using “Code Coverage Manager” tab, select the target instance. - Under “Code Coverage Manager” interface, select “Extract Code Coverage” link (on the left hand side) and submit for “Extract Coverage” Upon the completion of the above step (“Extract Coverage”) at least once, use the remaining links, “Previous Execution” ,“Historical Analysis”, “Schedule Apex Test Execution” , “Delete Groups”	Please refer to figure 16 & 17	Installation is successfully completed.

Figure 16:

Figure 17:


Code Coverage Ma...
Home
Remote Auth Details
Code Coverage Manager
Add/Modify Remote Auth
Code Coverage Manager
INFOSYS LIMITED
Selected Instance: Dev Ops Test
Home
Extract Code Coverage
Previous Executions
Historical Analysis
Delete Groups
MOST RECENT EXECUTION DETAILS
APEX COVERAGE DETAILS
FLOW COVERAGE DETAILS
COMPONENT GROUP: ENTIRE ORG
DATED:18/08/2025 09:17 PM
ERRORS: 53
Export Details
63.60%
Components by Coverage
0%
1% - 50%
51% - 75%
76% - 100%
144
132
SUMMARY
Total Coverage
63.60%
Total Components
310
Number of Lines Covered
9372
Total Number of Lines
14736

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Step	Instruction	Illustration	Expected Result
2	App Overview **Step 1:** Click “Code Coverage Manager “tab from the home page **Step 2:** User can choose which instance to check code coverage here from the dropdown. User provides instance of choice and clicks on submit. If the user wants to delete the instance, one can select the instance and click on Delete. **Step 3:** The user can see two tabs after selecting a particular org for code coverage, one for 'Apex Code Coverage' and another for 'Flow Coverage Details**'.** **Step 4:** By selecting any one of the tabs, users can view the code coverage details from the most recent run of Apex classes or flows for the selected org. **Step 5:** User can export details of execution by clicking on “Export Details “button on top right of home page. After user clicks on “Export Details “a “.xls” file with name CodeCoverage {DateTime of Execution} downloads to the system (file name , eg : CodeCoverage2-7-2017 2-53 PM) .	Please refer to figure 16, 17, & 18 &19 Please refer to figure 20, &21	Screen as shown is displayed “Select Instance” is a dropdown and shows all instances for which application configured to extract code coverage. User can have UAT, SIT and all Developer instances of the application configured to be available here. This sheet provides details of individual components, Number of lines covered, total lines and coverage of each as a percentage.

Figure 18:

Figure 19:

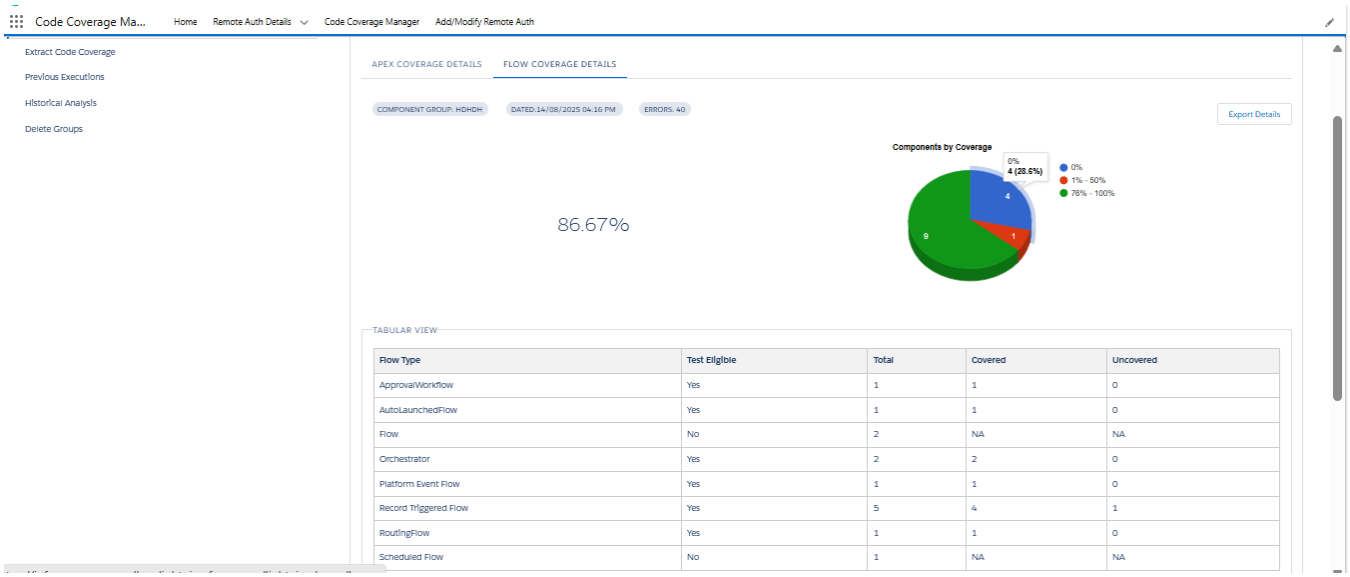
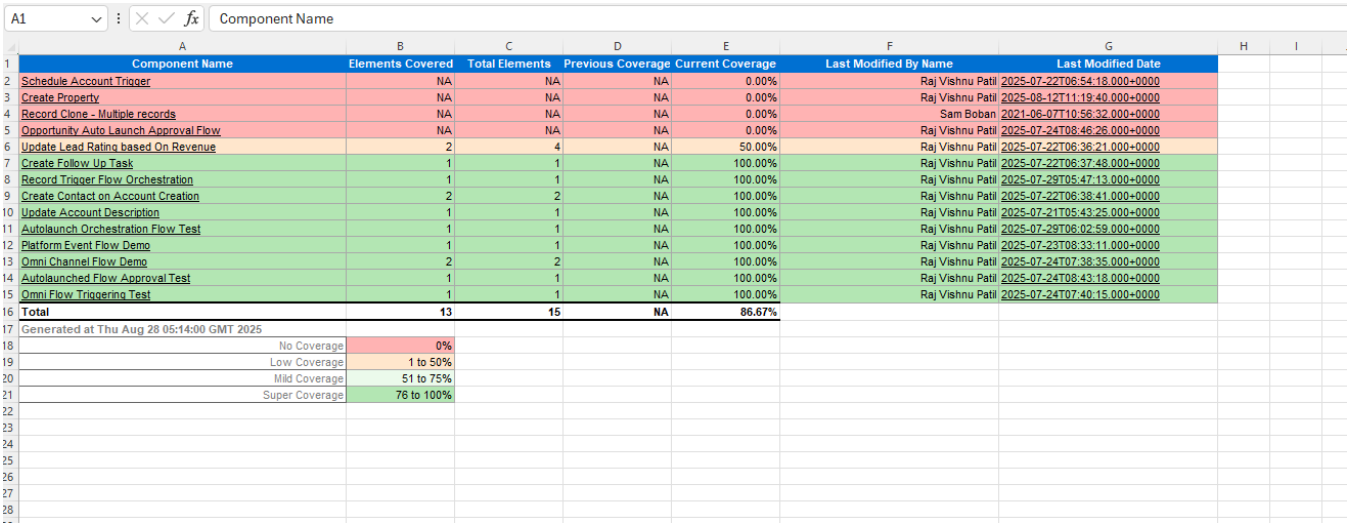


Figure 20:



A1 | Component Name

	A	B	C	D	E	F	G	H	I
1	Component Name	Elements Covered	Total Elements	Previous Coverage	Current Coverage	Last Modified By Name	Last Modified Date		
2	Schedule Account Trigger	NA	NA	NA	0.00%	Raj Vishnu Patil	2025-07-22T06:54:18.000+0000		
3	Create Property	NA	NA	NA	0.00%	Raj Vishnu Patil	2025-08-12T11:19:40.000+0000		
4	Record Clone - Multiple records	NA	NA	NA	0.00%	Sam Boban	2021-06-07T10:56:32.000+0000		
5	Opportunity Auto Launch Approval Flow	NA	NA	NA	0.00%	Raj Vishnu Patil	2025-07-24T08:46:26.000+0000		
6	Update Lead Rating based On Revenue	2	4	NA	50.00%	Raj Vishnu Patil	2025-07-22T06:36:21.000+0000		
7	Create Follow Up Task	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-22T06:37:48.000+0000		
8	Record Trigger Flow Orchestration	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-29T05:47:13.000+0000		
9	Create Contact on Account Creation	2	2	NA	100.00%	Raj Vishnu Patil	2025-07-22T06:38:41.000+0000		
10	Update Account Description	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-21T05:43:25.000+0000		
11	Autolaunch Orchestration Flow Test	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-29T06:02:59.000+0000		
12	Platform Event Flow Demo	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-23T08:33:11.000+0000		
13	Omni Channel Flow Demo	2	2	NA	100.00%	Raj Vishnu Patil	2025-07-24T07:38:35.000+0000		
14	Autolaunched Flow Approval Test	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-24T08:43:18.000+0000		
15	Omni Flow Triggering Test	1	1	NA	100.00%	Raj Vishnu Patil	2025-07-24T07:40:15.000+0000		
16	**Total**	**13**	**15**	**NA**	**86.67%**				
17	Generated at Thu Aug 28 05:14:00 GMT 2025								
18	No Coverage	0%							
19	Low Coverage	1 to 50%							
20	Mild Coverage	51 to 75%							
21	Super Coverage	76 to 100%							
22									
23									
24									
25									
26									
27									
28									

Figure 21:

Component Name	Lines Covered	Total Lines	Previous Coverage	Current Coverage	Last Modified By Name	Last Modified Date
FutureClass	0	2	0.00%	0.00%	John Doe	2022-07-16 10:57
AnimalLocator	0	12	0.00%	0.00%	John Smith	2022-07-16 12:09
EncyptionTestCtrl	0	5	0.00%	0.00%	David Brown	2023-01-10 07:04
LearningApexForLWCEnablement	0	5	0.00%	0.00%	David Brown	2023-12-12 06:06
SDLC_AIHelper	24	52	35.00%	46.15%	John Doe	2024-05-13 10:37
AccountTrigger	2	4	45.00%	50.00%	John Doe	2022-04-27 09:54
ArithOperation	2	4	50.00%	50.00%	John Smith	2022-04-29 09:52
SDLC_AnalysisController	76	115	66.09%	66.09%	David Brown	2024-05-13 10:37
SDLC_RAGDefault	26	39	66.67%	66.67%	John Smith	2024-05-13 10:37
gsyd_FolderTemplate	75	101	74.26%	74.26%	John Doe	2021-06-10 11:38
SDLC_LLMContext	6	8	66.00%	75.00%	David Brown	2024-05-13 10:37
ApexTypesController	10	10	83.00%	100.00%	David Brown	2021-02-24 07:53
LMSVisualforceController	8	8	92.00%	100.00%	John Doe	2021-02-24 07:53
PagedResult	4	4	78.00%	100.00%	John Smith	2021-06-03 08:45
GeocodingService	36	36	100.00%	100.00%	John Doe	2021-06-03 08:45
Total	**269**	**405**	**50.42%**	**66.41%**		
Generated at Tue Mar 18 08:06:43 GMT 2025						
No Coverage	0%					
Low Coverage	1 to 50%					
Mild Coverage	51 to 75%					
Super Coverage	76 to 100%					

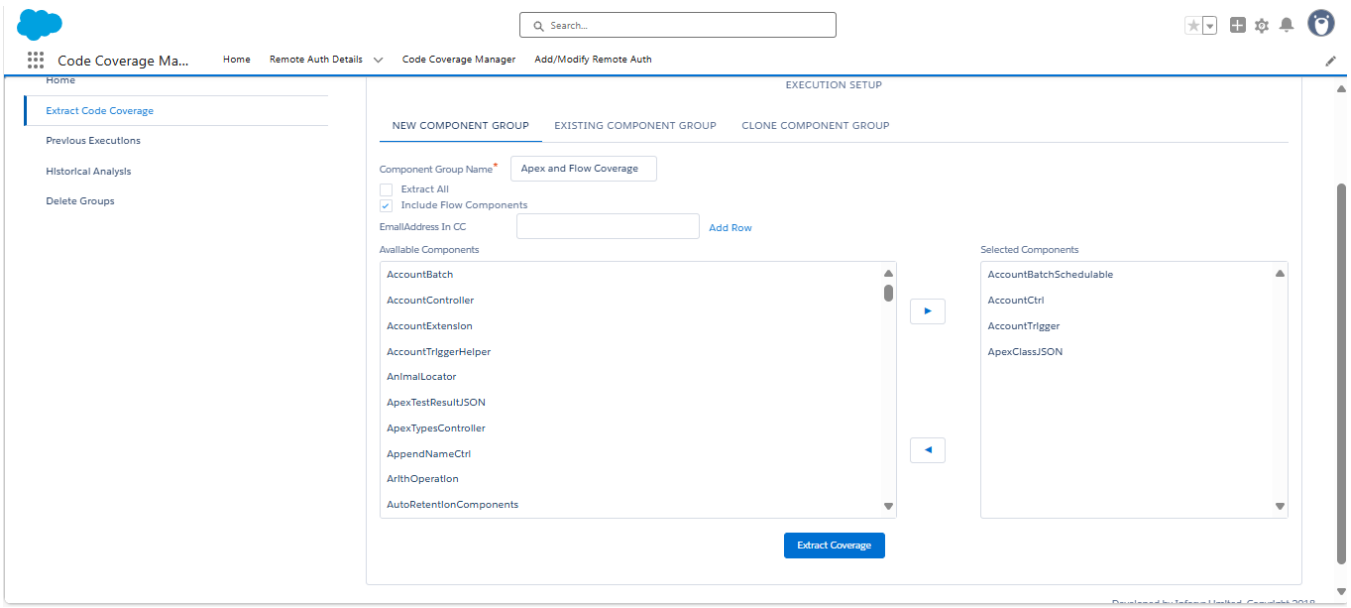
Step	Instruction	Illustration	Expected Result
3	**Home Screen:** Screen provides a graphical summary of most recent code coverage execution	Please refer to figure 17 ,19	

“Code Coverage Manager” from Infosys

Work Instructions

Step	Instruction	Illustration	Expected Result
4	**Extract Code Coverage** - **Step 1:** Create a component Group or select “Extract All” checkbox to create “Entire Org” component group, which has all the components. Also, include any additional email address if required for CC. More than one Email Address could be added by clicking on Add Row. - **Step 2:** User can also be able to include the flow coverage by selecting the Include flow components checkbox. - **Step 3:** Click on Extract Coverage	Please refer to figure 22	**Existing Component Group** tab would be used to select existing component group for code coverage Extraction **Clone Component Group** tab would be used to clone an existing component group and add any new components if required.

Figure 22:

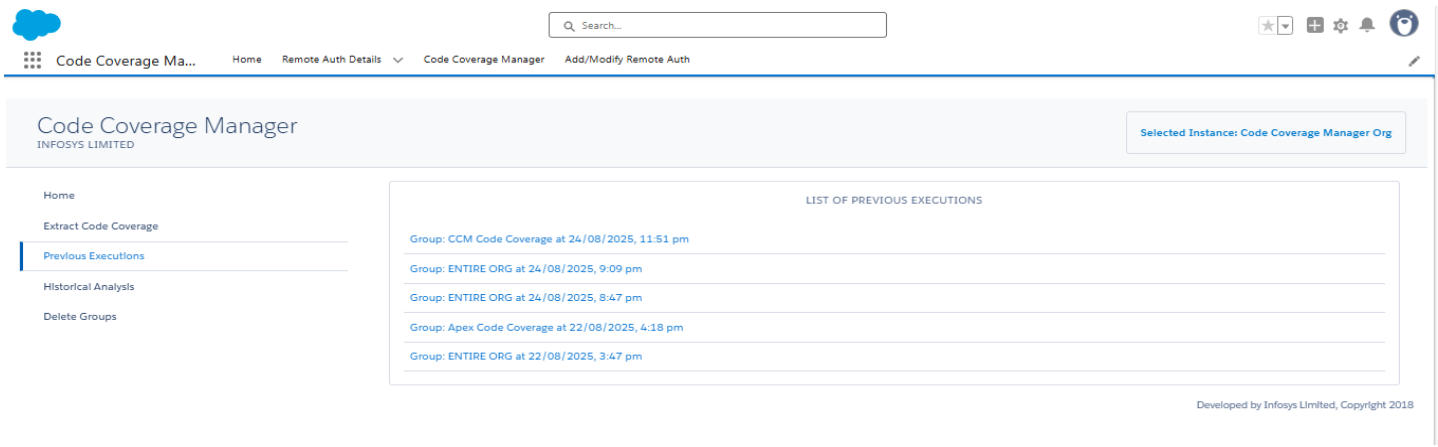


“Code Coverage Manager” from Infosys

Work Instructions

Step	Instruction	Illustration	Expected Result
5	**Previous Executions** 5. **Step 1:** Click on side menu “Previous executions 6. **Step 2:** Click on the hyperlink of any previous execution to check the details.	Please refer to figure 23	NA

Figure 23:



Step	Instruction	Illustration	Expected Result
6	**Historical Analysis** **Step 1:** Select Component group is a dropdown from which user can choose component group. User selects component group and clicks on “View” and the screen is displayed. - **Apex/Flow Toggle:** User can switch between the apex and flow Coverage History Trend Chart to view the details last coverage % and errors by clicking on the view button - **Export History:** User clicks on this button on top right of the page to download code coverage history .xls file with name coveragehistory {DateTime of Execution} (file name, e.g.: coveragehistory2-7-2017 3-08 PM). **7. Component History**: Historical analysis of individual components can be done by clicking on Component history button on the top right corner of the page Components for which trend has to be checked can be selected from the dropdown and user can click on view. - **Export All:** User clicks on this button on top right of the page to download	Please refer to figure 24 , 25 .26	NA

	code coverage history .xls file with name (coveragehistory {DateTime of Execution}) (eg: coveragehistory2-7-2017 3-08 PM).		

Figure 24:

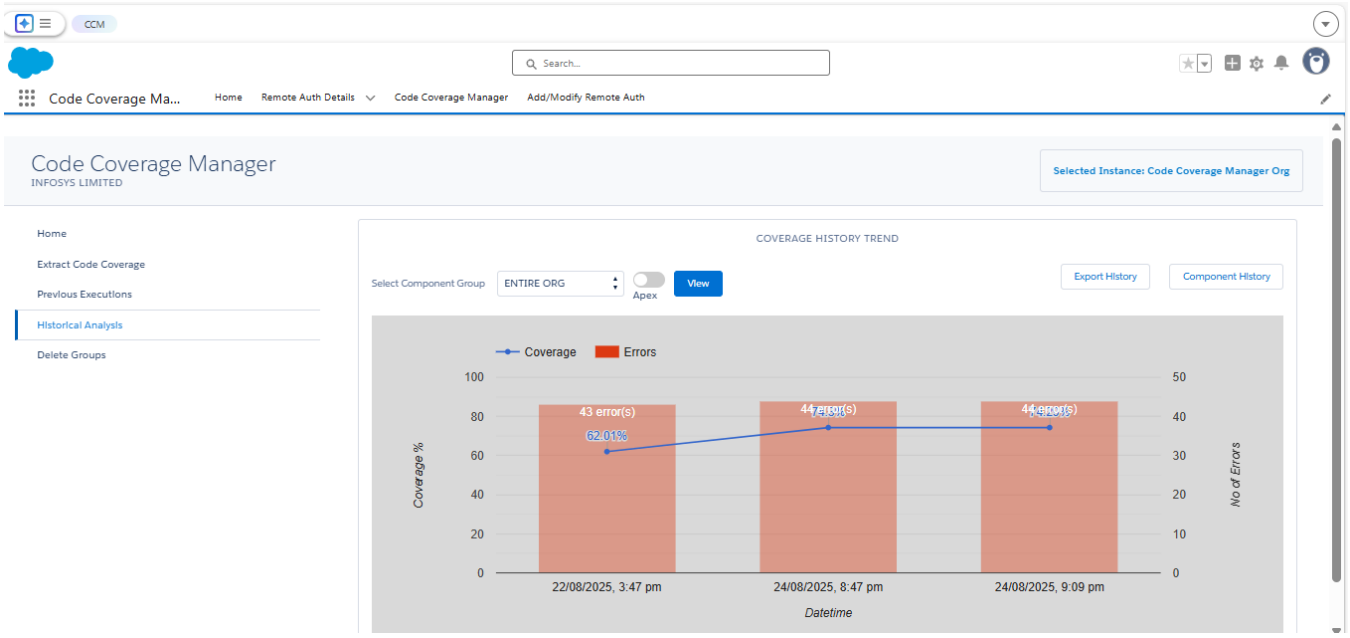


Figure 25::

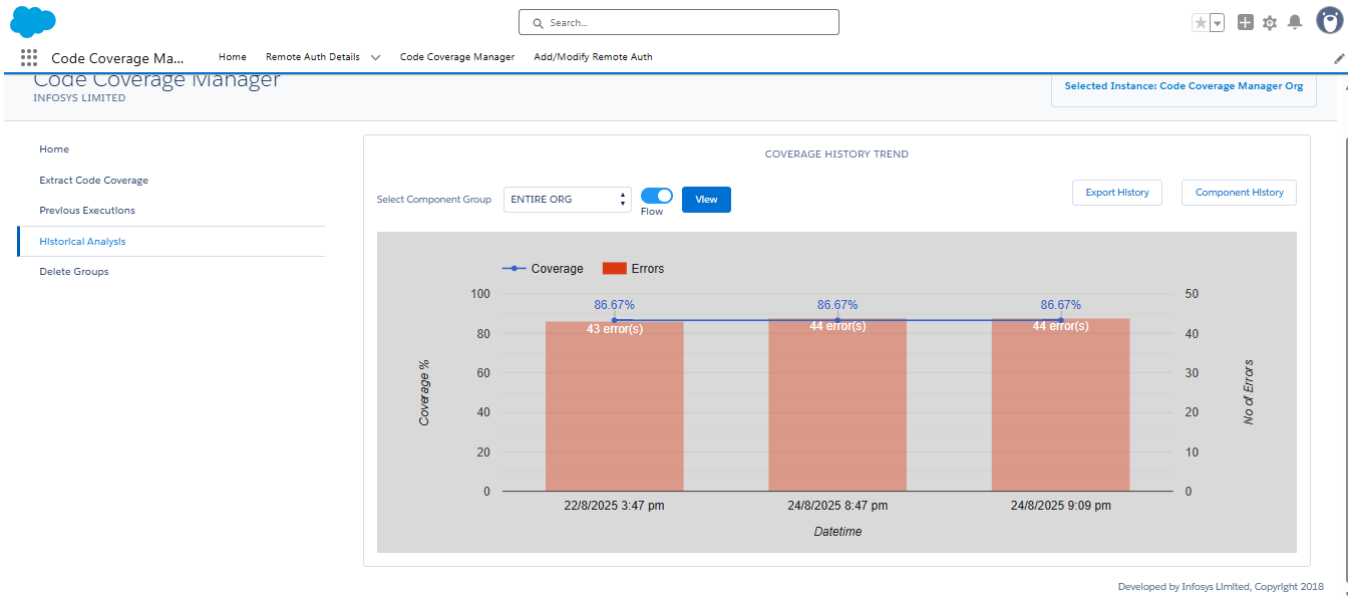
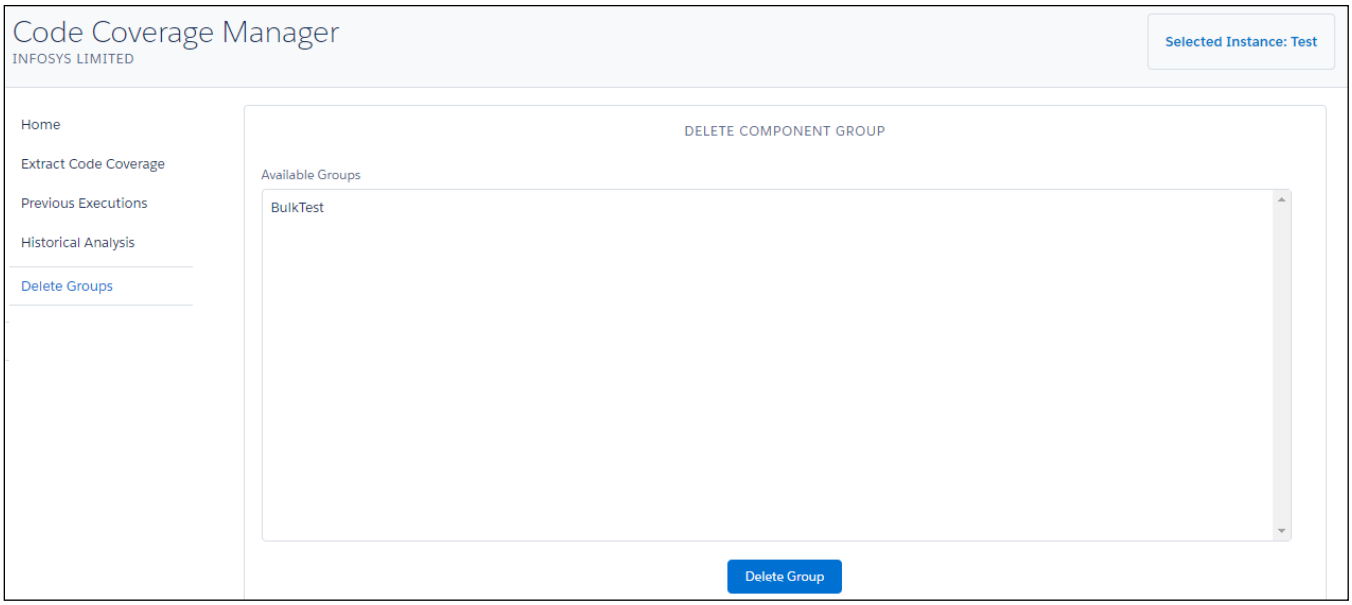


Figure 25:

Step	Instruction	Illustration	Expected Result
7	**Delete Groups:** Delete Selected Component group	Please refer to figure 23	NA

Figure 26:



Common Troubleshooting Tips

- **Issue #1**

Attempt to de-reference a null object

Error is in expression '{!init}' in page infy_cct:remoteauthpage: (infy_cct)

An unexpected error has occurred. Your solution provider has been notified. (infy_cct)

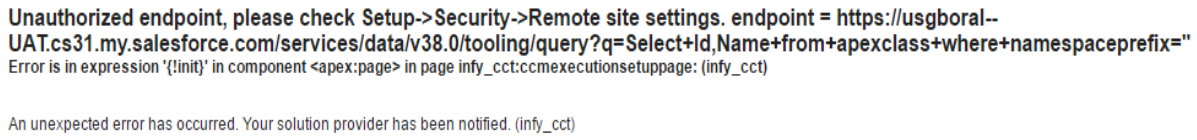
Resolution:

Scenario #1: The app is installed on a sandbox (non-production instance), but “Remote Connectivity” setting is not selected.

- **Scenario #2**: Not all the installation steps have been complete.

- **Issue #2**

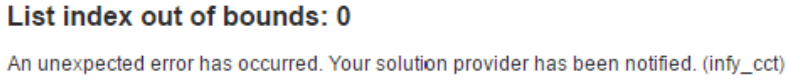
Unable to view the application or perform necessary tasks or getting “unauthorized endpoint” error message



Resolution:

- Remote site settings have not been created/activated. Create remote site setting

- **Issue #3**



Resolution:

- Ensure that code coverage has been calculated successfully for the target org and the org has at least one apex component for which code coverage needs to be measured

- **Issue #4**

Resolution:

- **Scenario #1:** The previous oAuth step may be incomplete; Re-perform the oAuth setup steps

- **Scenario #2:** An org where the app is installed and the org (“tool org”) on which code coverage is being measured same the same node (e.g. CS5 or NS6). Recommend to setup “my domain” on the “tool org”.

- **Issue #5**

  null input to JSON parser

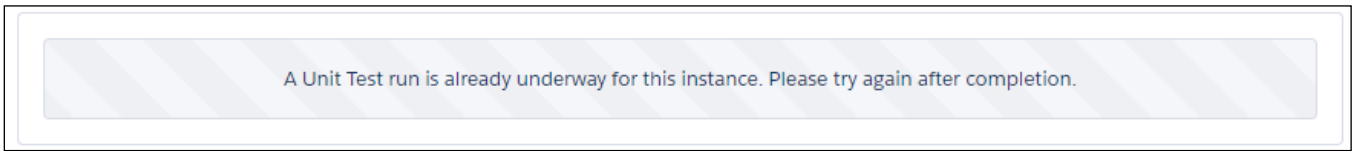
  Error is in expression '{!init}' in component <apex:page> in page infy_cct:ccmexecutionsetuppagemock: (System Code)

Resolution:

  - Remote site settings have not been created/activated. Create remote site setting

- **Issue #6**

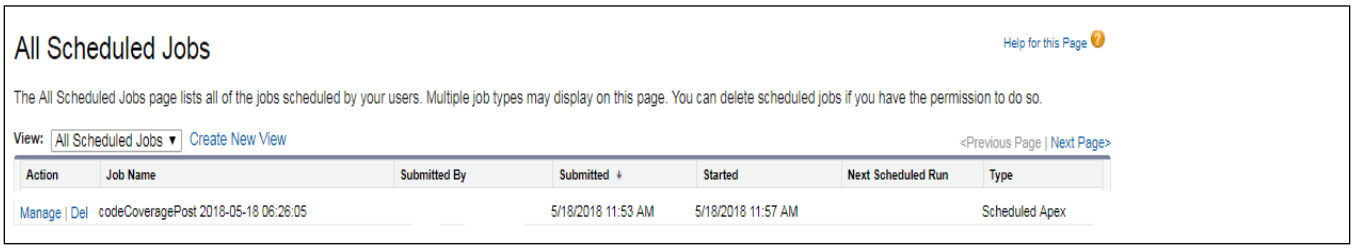
- On selection of “Extract Code Coverage” or “Delete Groups”, a message is being displayed “**A Unit Test run is already underway for this instance. Please try again after completion.”**



Resolution:

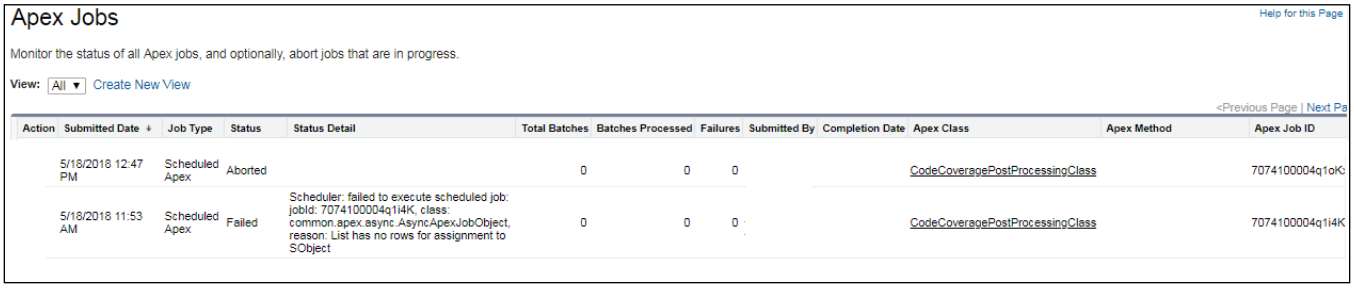
  - **Scenario #1: An Apex Test Execution to fetch Code coverage from Target Org.**

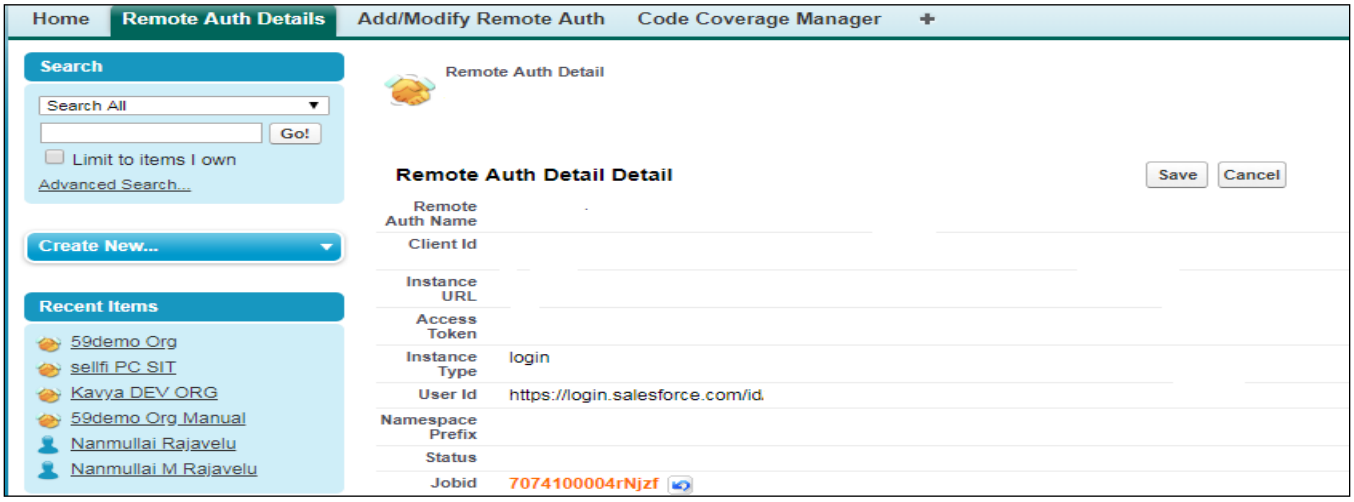
    - Delete the Job from Scheduled Jobs. The message will go away as there is no more a job, which is waiting to be executed.



  - **Scenario #2: Any Code Coverage Apex Job has failed due to an error but Job Id is not cleared.**

    - Edit and clear any job id value from the Jobid field in respective remote auth connection present in Remote Auth Details Tab.





- **Issue #7**

Update failed. First exception on row 0 with id a1t0k000001Bhx5AAC; first error: STRING_TOO_LONG, Jobid: data value too large: [{"message":"This test is already in the execution queue.","errorCode":"ALREADY_IN_PROCESS"}] (max length=18): [infy_cct__Jobid__c]

Error is in expression '{!doNextOpt1}' in page infy_cct:ccmexecutionsetuppagemock: (infy_cct)

Resolution:

This error will come if there is an existing CCM job being executed and user tries to again run the CCM app on same org. One should cancel the job and then run the CCM app.