Customising Redmine and Superset to Allow Automatic Login with Gmail through Keycloak

Task Description:

Here are the steps to integrate Redmine and Apache Superset with Keycloak for easy Gmail login:

1. Begin by setting up Keycloak. Create a realm and set up Google as an identity provider using OAuth credentials from the Google API Console.
2. Then, create separate clients within Keycloak for Redmine and Superset, making sure to specify the correct redirect URIs.
3. Install the necessary OAuth plugin in Redmine, set it up with Keycloak client details, and update Redmine's configuration file.
4. For Superset, install the required Python packages and update the superset_config.py file to include OIDC configuration for Keycloak.
5. Finally, restart both Redmine and Superset servers to apply the changes.

To verify the integration, access Redmine and Superset using Google credentials, and check that user information is correctly populated.

Table of Content

Scenario 1 : Users Access Redmine Login Page

Given: The user wants to access Redmine	
When: The user navigates to the URL "127.0.0.1:3000"	
Then: The user should see the Redmine login page or dashboard	
Result: Passed	
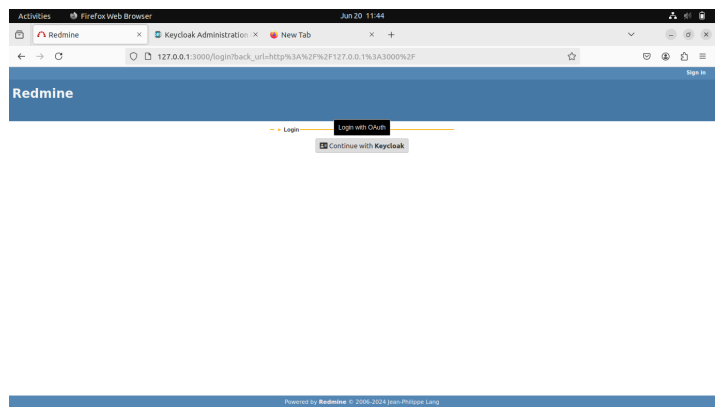
| Scenario 2 : Users Authenticate with Keycloak and Google OAuth in Redmine	
Given: The user navigates to the Redmine login page	**Output:**
When: The user selects "Continue with Keycloak"	
And: The user selects the Google authentication option in Keycloak	
And: The user login with the email "manish_choudhary@fosteringlinux.com"	
Then: The user successfully logs in to Redmine	
Result: Passed	
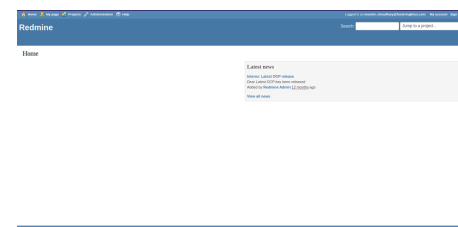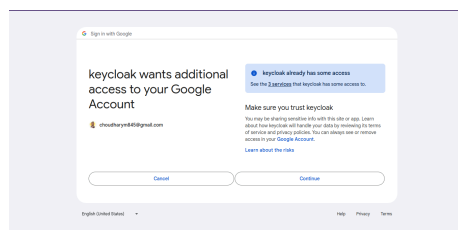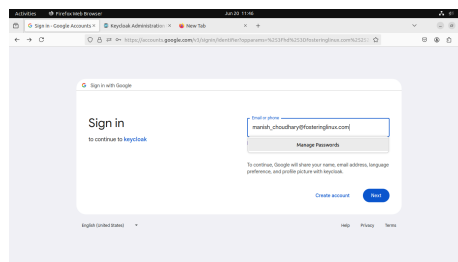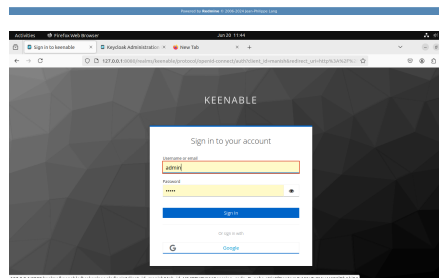
Scenario 3 : User views assigned Project in Redmine

Given: A user account exists in the system
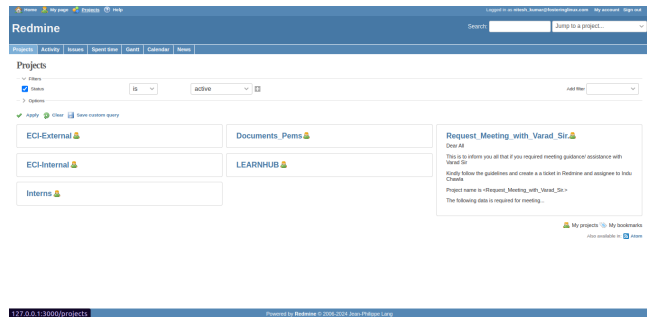
And: The user is logged into their account

When: The user navigates to their account profile

Then: The user should be able to view all Project assigned to them

Result: Passed

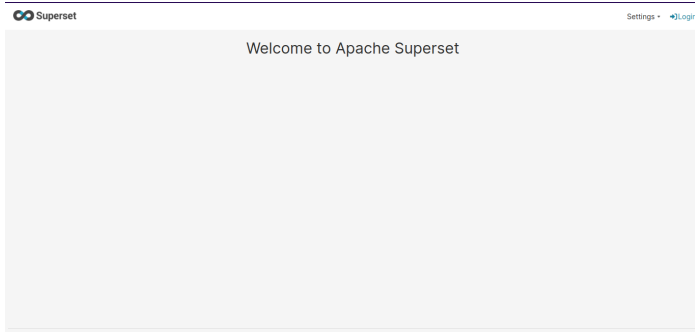**Output:**

Scenario 4 : User accesses Superset application

Given: The user wants to access Superset	**Output:**
When: The user navigates to the URL "127.0.0.1:8088"	
Then: The user should see the Superset login page	
Result: Passed	

Superset   Settings ▾   ⊕Login

Welcome to Apache Superset

Scenario 5 : User authenticates with Keycloak and Google OAuth in Superset

Given: The user navigates to the Superset login page	**Output:**
When: The user selects "Login"	
Then: The user successfully logged in to Superset	
Result: Passed	
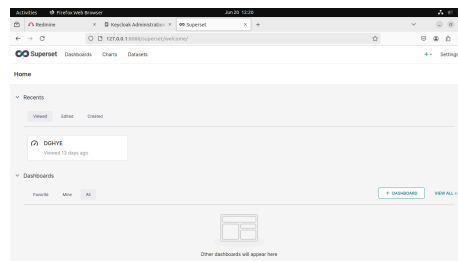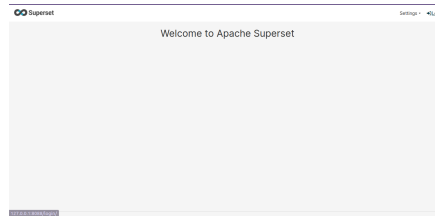
Scenario 6 : Handling Authentication Errors for Unknown Users in Redmine

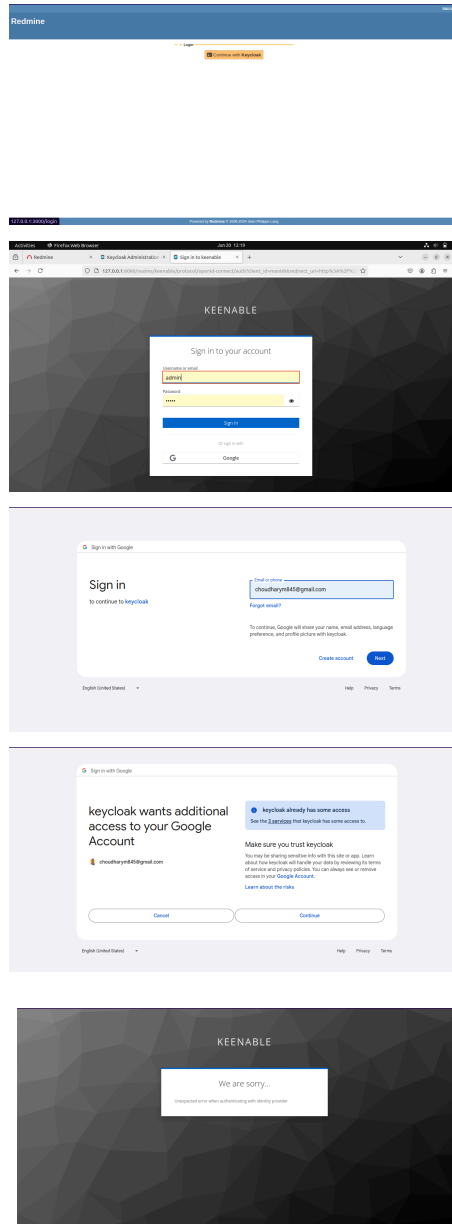|	
Given: The user navigates to the Redmine login page	**Output:**
When: The user selects "Continue with Keycloak"	
And: The user selects the Google authentication option in Keycloak	
And: The user logs in with the email "choudharym845@gmail.com"	
Then: The user sees an error indicating that the user does not exist in Redmine	
Result: Passed	

Scenario 7 : Handling Authentication Errors for Unknown Users in Superset

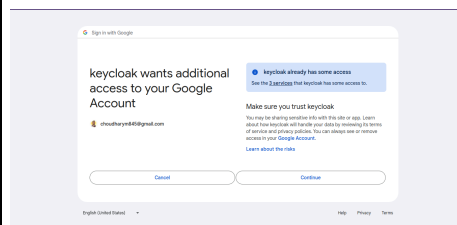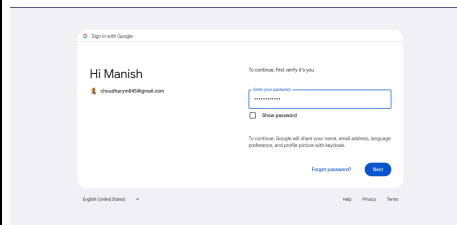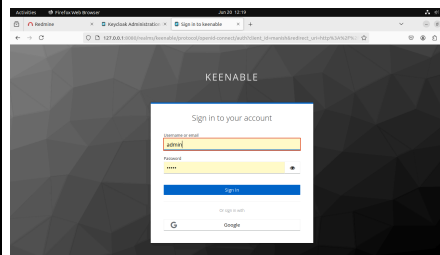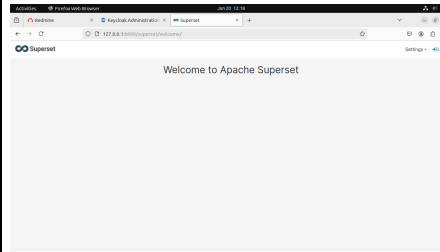|	
Given: The user navigates to the Superset login page	**Output:**
When: The user selects "Login"	
And: The user selects the Google authentication option in Keycloak	
And: The user logs in with the email "choudharym845@gmail.com"	
Then: The user sees an error indicating that the user does not exist in Superset	
Result: Passed	
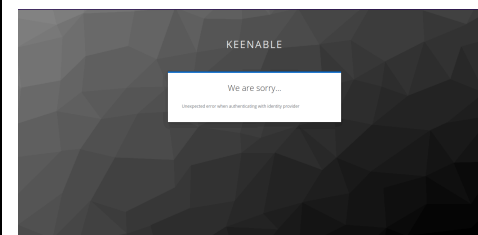
Scenario 8 : User Attempts to Access a Locked Account

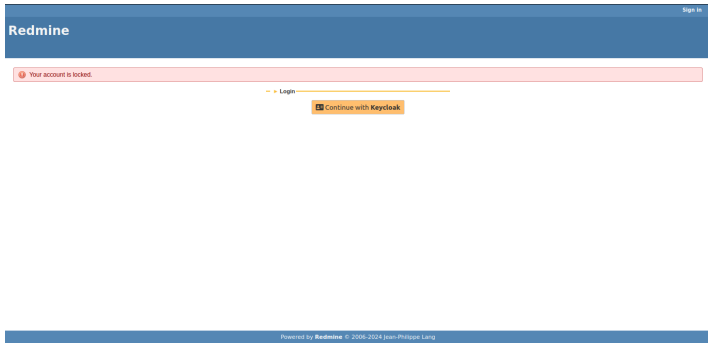|	
Given: The user has an account in the Redmine	**Output:**
When: The user attempts to log in to their account	
Then: The user should not be able to access any Redmine functionalities	
And: The user's account is locked	
Result: Passed	

Redmine

Sign in

Your account is locked.

Login

Continue with **Keycloak**

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| **Scenario 9 : Both Redmine and Superset are configured to use Keycloak for SSO** |

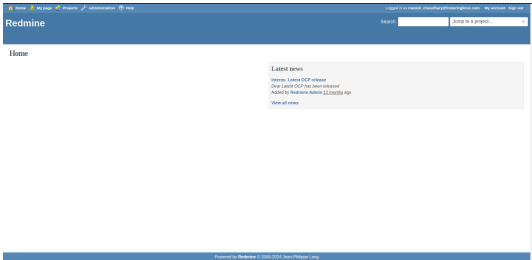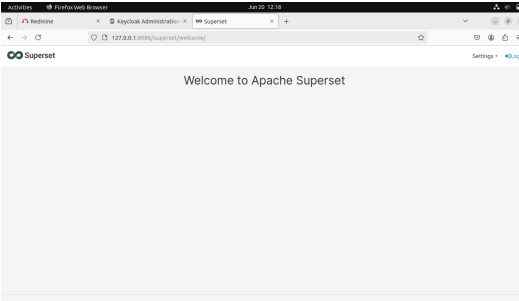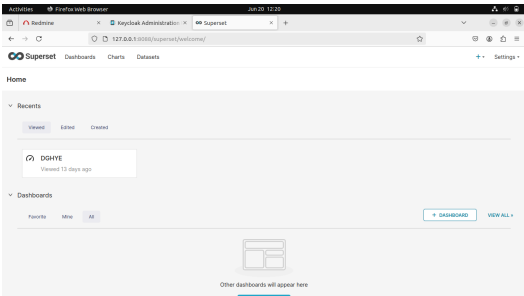|	
Given: The user logs in to Redmine with Keycloak authentication	**Output:**
When: The user logs in to Redmine with Google authentication	
And: The user tries to log in to Redmine with the email "manish_choudhary@fosteringlinux.com"	
Then: The user logs in successfully if the user exists in Redmine	
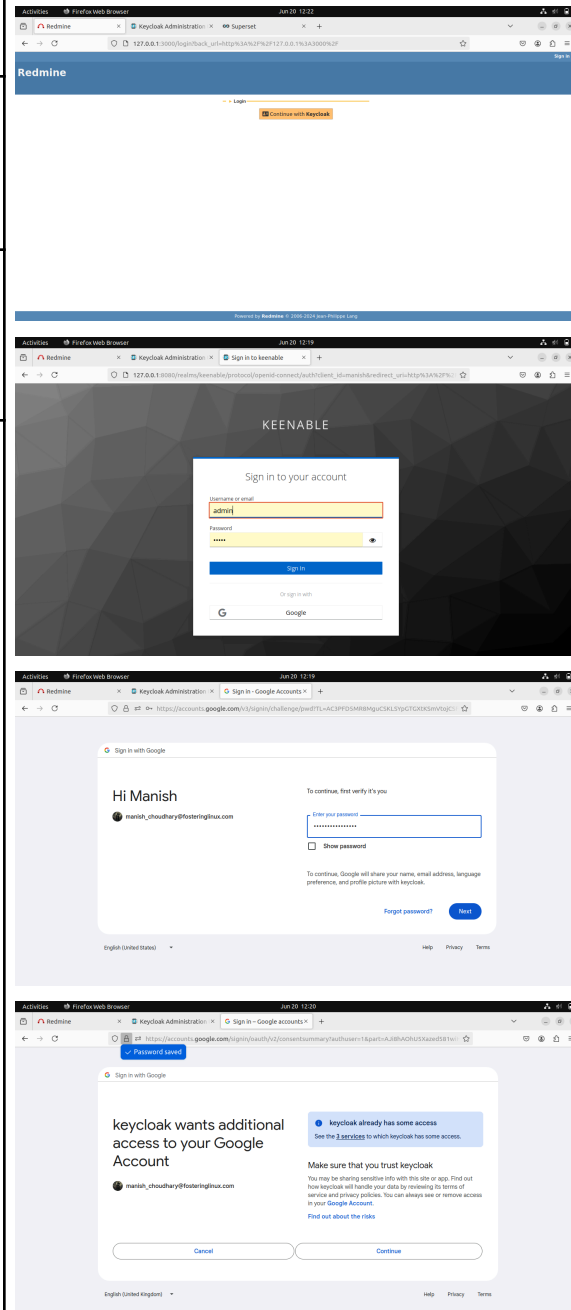
And: The user logs in to Superset with Keycloak authentication	Welcome to Apache Superset
And: The user logs in successfully if the user exists in Superset	
Result: Passed	