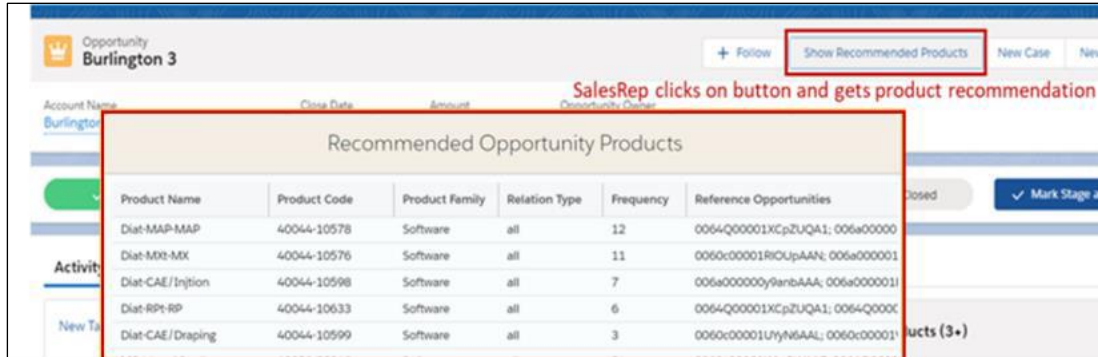


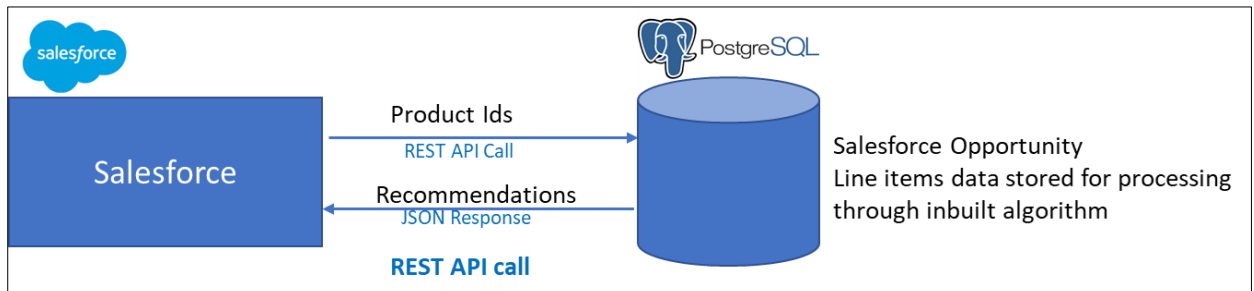
Solution Design: Cross-sell Recommendations in Salesforce

Solution functionality – How end user works.



1. Login to Salesforce. Ensure you are assigned 'Access_To_Recommended_Products' permission set.
2. Open an Opportunity. Associate Opportunity Products with Opportunity.
3. Click on 'Show Recommended Products' button
4. The Recommended Products are shown for the Opportunity in Pop Up window

Design Diagram:



As sales team works on opportunities, our solution 'CRM recommendations Plugin' leverages CRM system data and gives best cross-sell product recommendations through built-in Sales pattern study machine learning algorithm in external PostgreSQL DB. With the recommendations plugin Sales team gets 'customers who bought this, also bought that' type of product recommendations while working on an opportunity in CRM system. It enables them to sell more and helps organization plan effective 1:1 customer marketing with recommendation-based product insights.

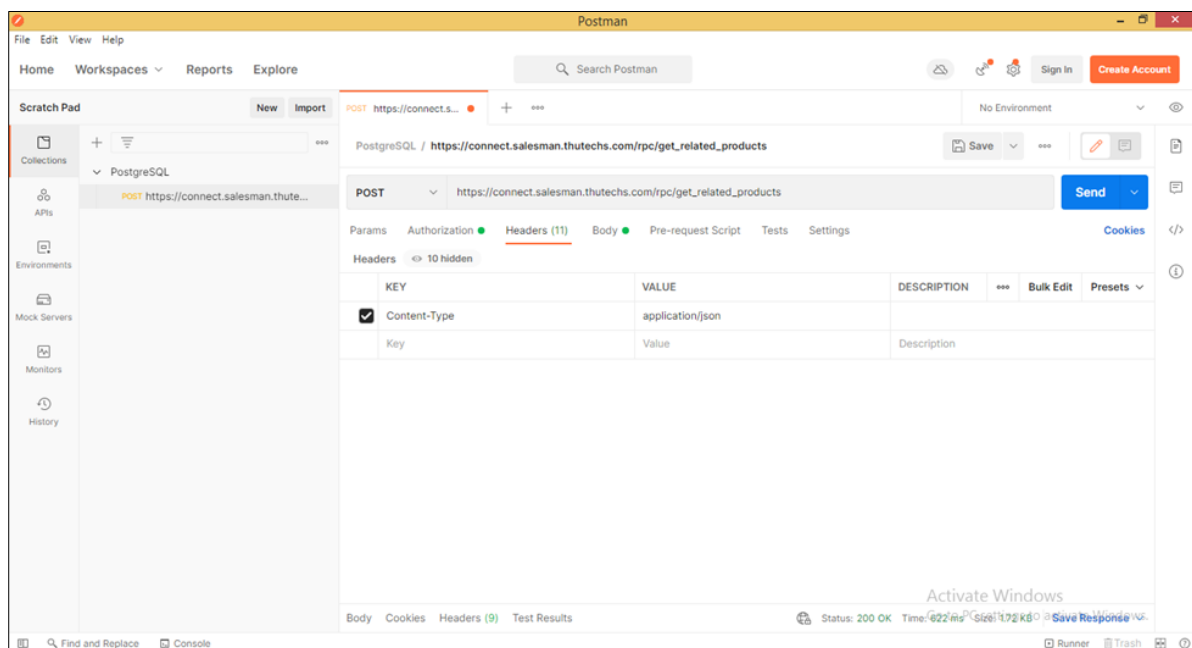
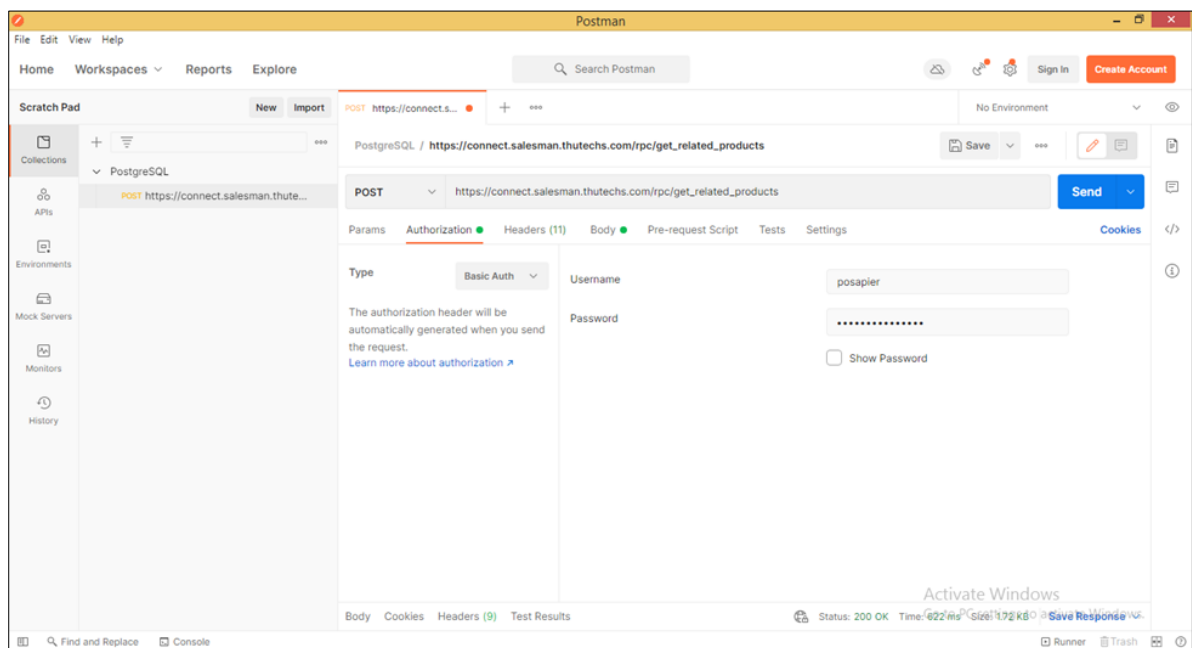
Technical Working:

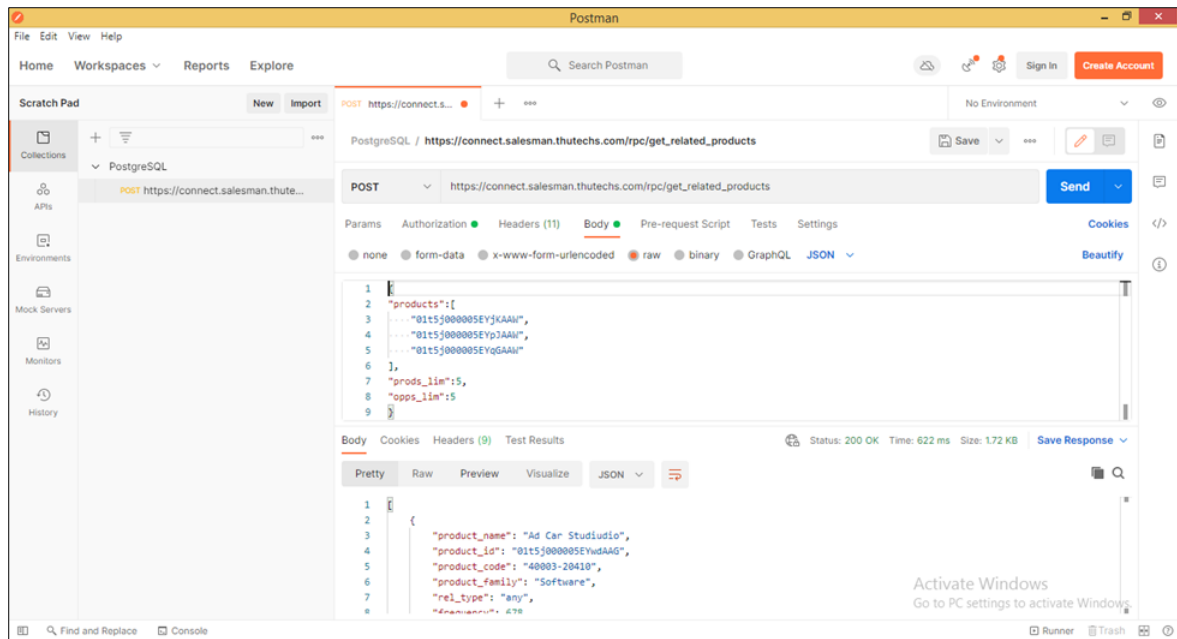
While organizations today define different strategies for effective cross sell, the solution leverages Opportunity line items data which is stored in external PostgreSQL DB as master data. The Opportunity line items data stored in PostgreSQL contains Product Id, Product Name, Product Code, Opportunity Id and Product family.

The Product Ids from Opportunity are sent with 'Get_related_products' call to external PostgreSQL database API on this action. As the product Ids are consumed, the built-in algorithm in PostgreSQL sends back JSON response to Salesforce with the recommended products that are displayed with Lightning component on Opportunity.

REST API Call outs explained with Screenshots:

1. Get_related_Products API call working explained through Postman tool.
Authentication – Basic PostgreSQL Authentication





The response received as JSON is shown through 'Recommendations JSON Response' attachment.

This response is displayed as a table used in modal through Lightning Component on Opportunity.



Components built for the solution in Salesforce package:

Component Name	Type
Access_To_Recommended_Products	Permission Set
connectPostgres	Named Credential
Frequency	Custom Field
Match	Custom Field
Opportunity	Custom Field
Product Code	Custom Field
Product Family	Custom Field
Product Id	Custom Field
Product Name	Custom Field
Recommendation Layout	Page Layout
Recommended Opportunity Products	Custom Object
Recommended Opportunity Products Layout	Page Layout
Reference Opportunities	Custom Field
RP Key	Custom Field
Show_Recommended_Products	Action
showRecommOppotyProducts	Aura Component Bundle
showRecommOppotyProductsCtrl	Apex Class
showRecommOppotyProductsCtrlTest	Apex Class