Business Intelligence & Business Analytics

Pineapple Implementation Report

Master of Science in Data Analytics

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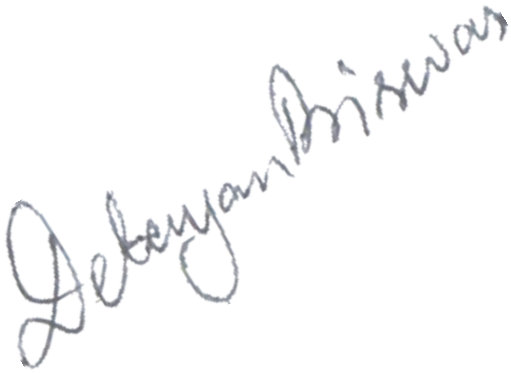
PINEAPPLE



Business Intelligence & Business Analytics

IMPLEMENTATION REPORT

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1. Data management and Implementation

The system database and schema for pineapple represents the different entities required to provide the solution for the business where the identified entities help to streamline the workflow in CRM as well as in turn allows to help overcome the other shortcomings by the help of data analysis and visualizations using the Power BI tool.

1.1 Database Schema and Design

With the help of Power BI, we can easily analyze the data and future requirements using effective and efficient dashboards. The database has been designed to fulfill the requirements of Pineapple.

The ***'Customer'*** table allows Pineapple to keep track of their customer base and the orders that originate from them. The Customer table contains details like name, email, address, and phone number.

The ***'Item'*** table helps to keep track of the products that the company deals with and makes sales of. The data consists of the categories of the products that the company deals with, Item Id, Item Name, Item Brand, Item Description, Year Built, Item Condition (Conditions are – Used-Good condition and Used-Like New condition), Vendor Name, Original Price, Stocked (detail that shows if the product is in stock or not). The Item table allows us to keep track of the initial tracking of the product stock with the vendor database, also allowing the Sales representative to identify the vendors that deal with the product.

The price point is then decided with the help of the ***'Item Depreciation'*** table where the Straight-Line Method of depreciation is mentioned for each product. The categorized items have details like the 'Life of the Asset', with their corresponding depreciation rate like 'Depreciation rate(0-2y)' and 'Depreciation Rate(2-4y). The depreciation of the items is also calculated for the products as per item category. The items categorized as 'Used-Good' have a depreciation rate of 10% more than the ones that are categorized under 'Used-Like New'. Finally, the depreciation amount is mentioned in columns like 'Depreciation Amount (2019)', 'Depreciation Amount (2020)' and so on as per the age of the product.

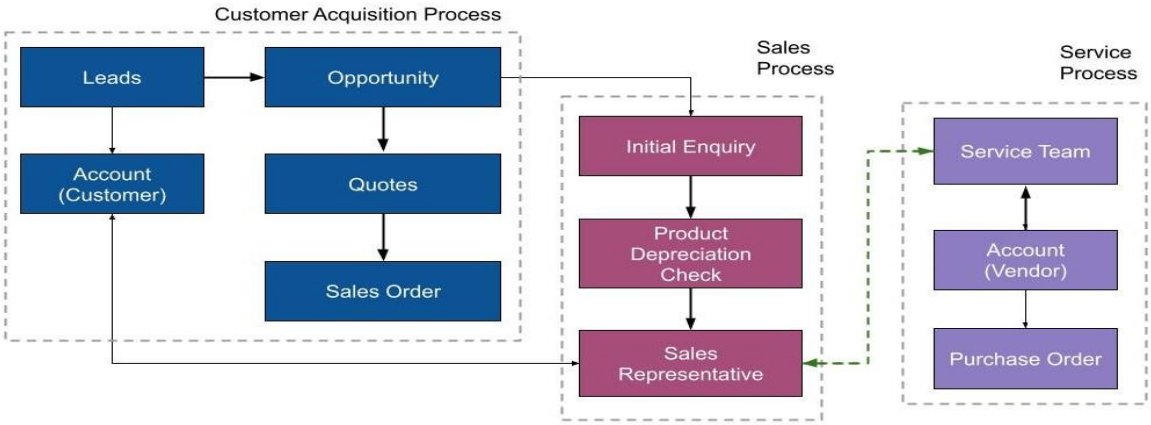
Once the order is finalized the record is then updated in the database table ***'Sales Order'***. Here the tracking is done for the Customer that makes the sales of, and other information such as product that they order, Order date, and an expected fulfilment date, status of the order, item condition, item original price, item depreciated price from the Depreciation table according to life of the product. The final price is stored in the column 'Amount (Rate*Quantity)'. All the above details along with the Sales Rep that is assigned to the sales record, are stored in this database which helps to track the revenue later. It also helps to track the sales performance for Pineapple.

Finally, we use feedback survey from the customers after every sale made through the help of Salesforce CRM with a rating-based system. The database table ***'Feedback'*** allows to store the feedback given by the customer after their purchase that in turn helps to keep track of the NPS score of Pineapple for the year 2023.

1.2 Salesforce CRM – Schema

The outlined CRM schema diagram illustrates the incorporation of an Entity Relationship Diagram (ERD) into Salesforce, as initially outlined in the proposal document. The objects and their interconnections serve as the fundamental framework on which this document's content relies. When

combined, they form a comprehensive configuration of a personalized Salesforce Customer Relationship Management solution specifically crafted for Pineapple. The core of the design revolves around two primary entities: Accounts and Products. These entities serve as focal points for the central operations of the two primary functions, namely Services and Sales.



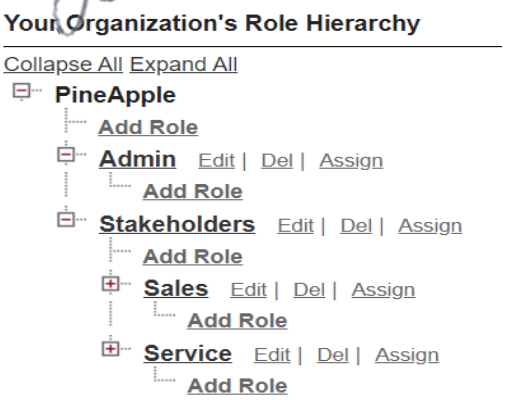
The CRM objects that are used:

Accounts, Contacts, Leads, Opportunities, Sales Order, Quotes, Product, Contact, Email Template.

1.3 Profiles

Profiles within Salesforce were configured to grant various levels of access and permissions based on job roles. This section delves into the profiles created for various teams at Pineapple, emphasizing the nuanced access control mechanisms in place to secure sensitive information. The crucial profiles that are necessary catered to Pineapple's business requirements are:

1. Admin **2. Stakeholders** **3. Sales** **4. Services**



1.3.1 Admin

The admin role is provided only to the admins within our organization who are collaborating with Pineapple to check over the streamlined workflow of Pineapple's CRM. The permissions associated with these roles are to check the sales and service, and all the reports associated with it.

1.3.2 Stakeholders

The Stakeholders role is the role available to all the stakeholders of the company. The role includes us, and other stakeholders associated with Pineapple. The permissions associated with this role are Sales order list and to view any analytics provided to them. They can check the different analytics provided by Salesforce CRM for e.g., the annual revenue, monthly revenue, monthly sales orders, etc.

1.3.3 Sales

This role is provided to the Sales representatives who are responsible for acquiring the customers. The leads that come up to the company with their queries are sequentially converted into opportunities, who are later then converted into a customer with the help of the sales representatives. This role provides access to the customer, lead, opportunity, and sales order lists.

1.3.4 Services

The services role is now provided to the members of the services team who are assigned the task of connecting with the vendors where they make sure of the product availability within the vendor's stock, as well as also are responsible to add any new products or removal of products from the CRM interface. They have permission to access the customer, products as well as vendors list.

1.4. Page Layouts

Pages serve as the user interface in the CRM tool. In the Pineapple configuration, most objects have dedicated pages designed for viewing, entering, or editing the data linked to each object. Although the standard setup includes a single page for most objects, a few select objects feature multiple page layouts. Each layout is customized for a specific profile, ensuring the presentation of the most pertinent information tailored to the key responsibilities of that role.

1.4.1 Sales View

a. ***Accounts (Customers)*** **-** The "Accounts (Customers)" provides a comprehensive overview of Pineapple's customer base. This includes detailed profiles of individual customers, their purchase history, preferences, and any relevant interactions with the company. The system captures and organizes customer information to facilitate personalized interactions, understand buying patterns, and tailor marketing strategies.

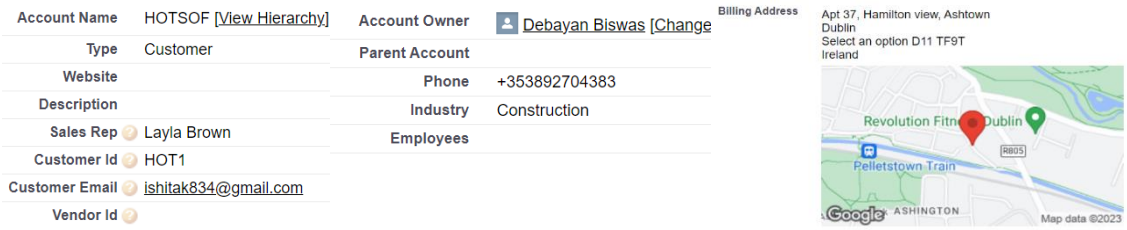
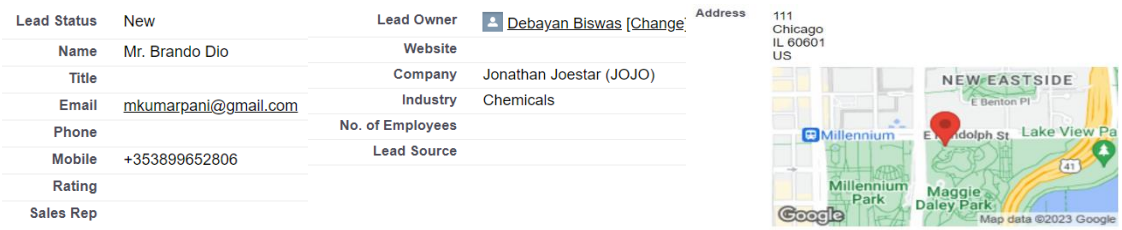


Fig: Accounts (Customers) in Salesforce CRM

b. Leads – With the help of "Leads", Pineapple tracks potential customers who have shown interest but have not made a purchase yet. This includes details about the source of the lead, the nature of the interest, and any follow-up actions taken. Managing leads effectively is crucial for converting prospects into Customers.



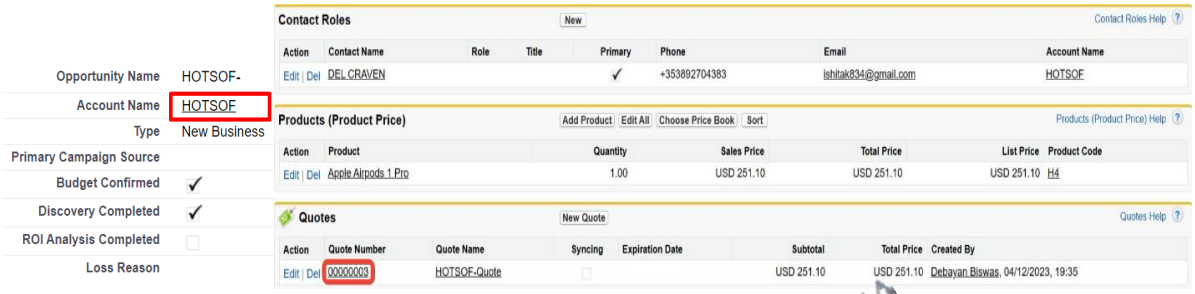
Lead Status	New
Name	Mr. Brando Dio
Title	
Email	mkumarpani@gmail.com
Phone	
Mobile	+353899652806
Rating	
Sales Rep	

Lead Owner	Debayan Biswas [Change]
Website	
Company	Jonathan Joestar (JOJO)
Industry	Chemicals
No. of Employees	
Lead Source	

Address: 111 Chicago IL 60601 US

Fig: Leads in Salesforce CRM

c. ***Opportunities*** **-** The "Opportunities" section focuses on potential sales. It includes information about potential revenue, associated customers, and the current stage of each opportunity in the sales pipeline. This view assists the sales team in prioritizing and advancing deals, contributing to revenue growth.



Opportunity Name	HOTSOF-
Account Name	HOTSOF
Type	New Business
Primary Campaign Source	
Budget Confirmed	✓
Discovery Completed	✓
ROI Analysis Completed	
Loss Reason	

Contact Roles (New)

Action	Contact Name	Role	Title	Primary	Phone	Email	Account Name
Edit | Del	DEL CRAVEN			✓	+353892704383	ishitak834@gmail.com	HOTSOF

Products (Product Price) (Add Product | Edit All | Choose Price Book | Sort)

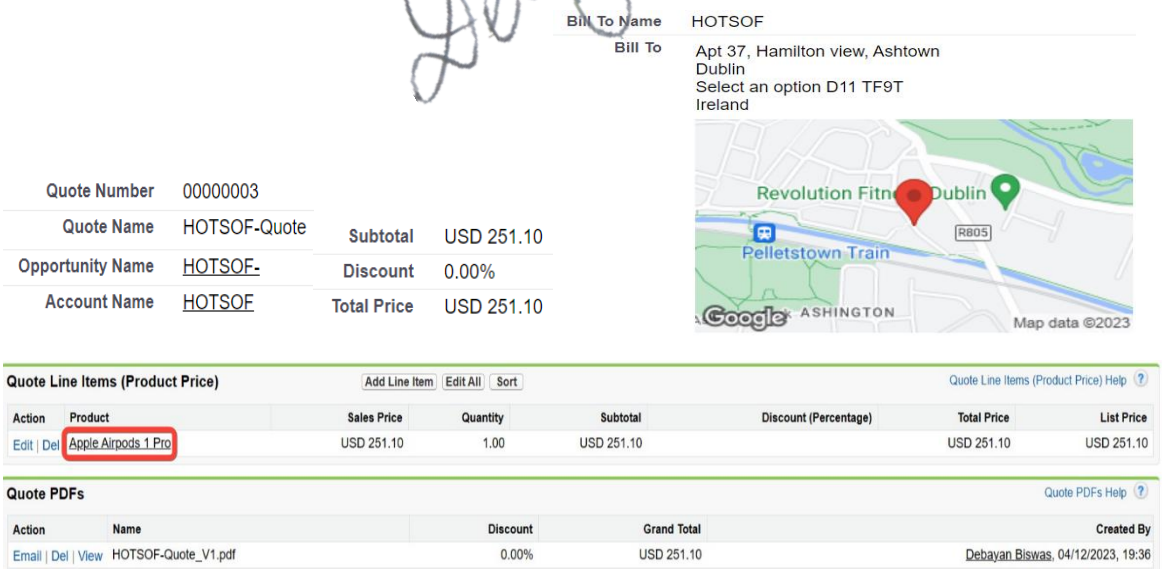
Action	Product	Quantity	Sales Price	Total Price	List Price	Product Code
Edit | Del	Apple Airpods 1 Pro	1.00	USD 251.10	USD 251.10	USD 251.10	H4

Quotes (New Quote)

Action	Quote Number	Quote Name	Syncing	Expiration Date	Subtotal	Total Price	Created By
Edit | Del	00000003	HOTSOF-Quote			USD 251.10	USD 251.10	Debayan Biswas, 04/12/2023, 19:35

Fig: Opportunities in Salesforce CRM

d. ***Quotes*** **–** The "Quotes" subsection is dedicated to documenting and managing the quotations provided to customers. It encompasses details about the products or services quoted, pricing information, and any specific terms or conditions. Effectively managing quotes is crucial for transparency in transactions and ensuring customer satisfaction.



Bill To Name	HOTSOF
Bill To	Apt 37, Hamilton view, Ashtown Dublin Select an option D11 TF9T Ireland

Quote Number	00000003
Quote Name	HOTSOF-Quote
Opportunity Name	HOTSOF-
Account Name	HOTSOF

Subtotal	USD 251.10
Discount	0.00%
Total Price	USD 251.10

Quote Line Items (Product Price) (Add Line Item | Edit All | Sort)

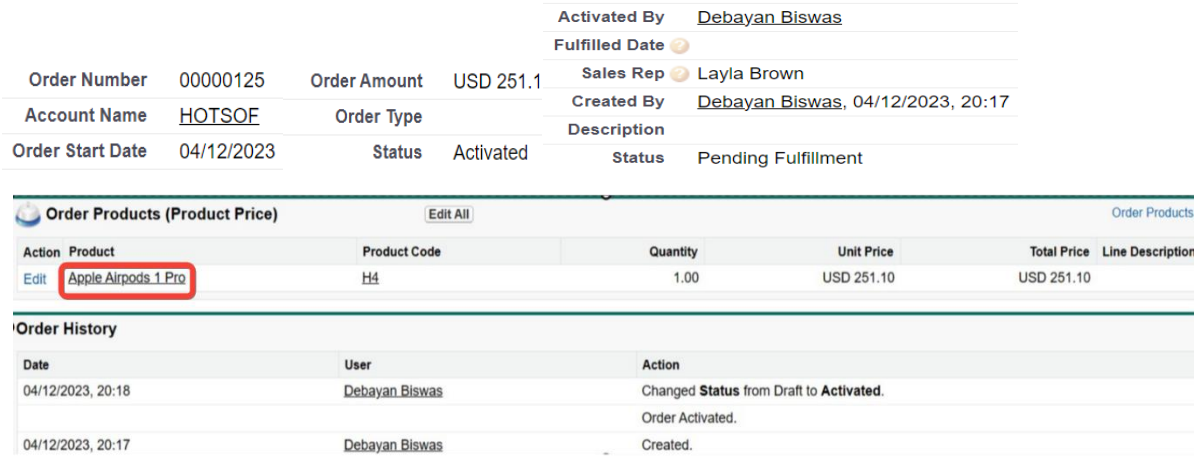
Action	Product	Sales Price	Quantity	Subtotal	Discount (Percentage)	Total Price	List Price
Edit | Del	Apple Airpods 1 Pro	USD 251.10	1.00	USD 251.10		USD 251.10	USD 251.10

Quote PDFs

Action	Name	Discount	Grand Total	Created By
Email | Del | View	HOTSOF-Quote_V1.pdf	0.00%	USD 251.10	Debayan Biswas, 04/12/2023, 19:36

Fig: Quotes in Salesforce CRM

e. ***Orders*** **-** In the "Orders" section, Pineapple maintains a comprehensive record of customer orders. This includes order details, shipping information, and the status of each order. Efficient order management is essential for timely fulfillment, inventory control, and overall customer satisfaction.



Order Number	00000125	Order Amount	USD 251.1
Account Name	HOTSOF	Order Type	
Order Start Date	04/12/2023	Status	Activated

Activated By	Debayan Biswas
Fulfilled Date	
Sales Rep	Layla Brown
Created By	Debayan Biswas, 04/12/2023, 20:17
Description	
Status	Pending Fulfillment

Order Products (Product Price) — Edit All — Order Products

Action	Product	Product Code	Quantity	Unit Price	Total Price	Line Description
Edit	Apple Airpods 1 Pro	H4	1.00	USD 251.10	USD 251.10	

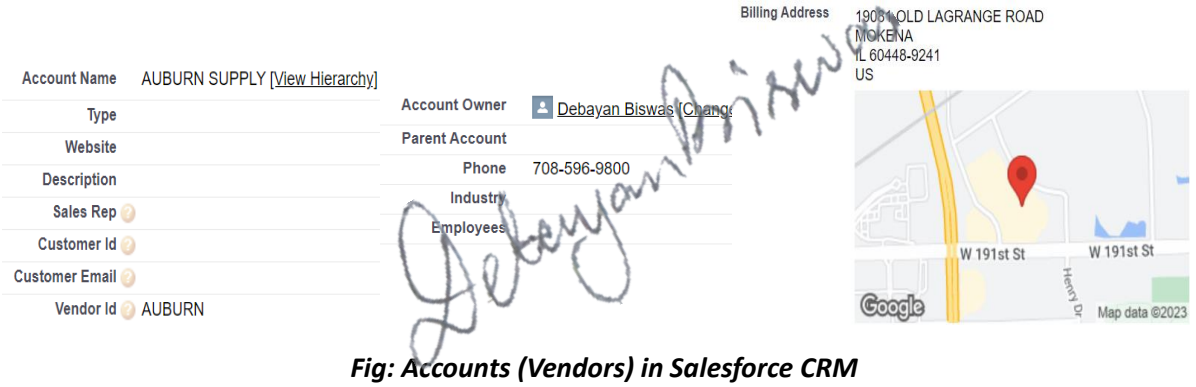
Order History

Date	User	Action
04/12/2023, 20:18	Debayan Biswas	Changed **Status** from Draft to **Activated**.
		Order Activated.
04/12/2023, 20:17	Debayan Biswas	Created.

Fig: Orders in Salesforce CRM

1.4.2 Services View

a. Accounts (Vendors) - The "Accounts (Vendors)" section in the Services View focuses on Pineapple's relationships with its Suppliers. It includes detailed profiles of vendors, and performance metrics. This helps in managing the supply chain, ensuring product quality, and fostering strong partnerships.



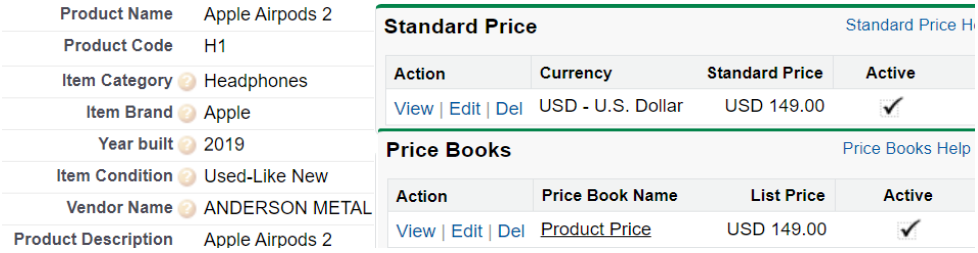
Account Name	AUBURN SUPPLY [View Hierarchy]
Type	
Website	
Description	
Sales Rep	
Customer Id	
Customer Email	
Vendor Id	AUBURN

Account Owner	Debayan Biswas [Change]
Parent Account	
Phone	708-596-9800
Industry	
Employees	

Billing Address
19031 OLD LAGRANGE ROAD
MOKENA
IL 60448-9241
US

Fig: Accounts (Vendors) in Salesforce CRM

b. Products - Within the "Products" subsection, Pineapple catalogues its inventory of used electronic products. This includes detailed information about each product, such as specifications, pricing, and availability. Effective product management is crucial for accurate order fulfillment and providing customers with up-to-date information.



Product Name	Apple Airpods 2
Product Code	H1
Item Category	Headphones
Item Brand	Apple
Year built	2019
Item Condition	Used-Like New
Vendor Name	ANDERSON METAL
Product Description	Apple Airpods 2

Standard Price — Standard Price H

Action	Currency	Standard Price	Active
View | Edit | Del	USD - U.S. Dollar	USD 149.00	✓

Price Books — Price Books Help

Action	Price Book Name	List Price	Active
View | Edit | Del	Product Price	USD 149.00	✓

Fig: Products in Salesforce CRM

c. Contact – The "Contact" section centralizes information about key contacts related to Pineapple's services. This includes contact details for vendors, service providers, and other relevant entities. Streamlining contact information enhances communication and collaboration across several aspects of service delivery.

Name	Mr. DEL CRAVEN	Contact Owner	Debayan Biswas [Change
Account Name	HOTSOF	Reports To	[View Org Chart]
Title		Department	
Email	ishitak834@gmail.com	Fax	
Phone	+353892704383		
Mobile			

Opportunities New Opportunity

Action	Opportunity Name	Stage	Amount	Close Date
Edit | Del	HOTSOF-	Closed Won	USD 251.10	04/12/2023

Quotes

Action	Quote Number	Quote Name	Expiration Date	Syncing	Subtotal	Total Price	Created By
Edit | Del	00000003	HOTSOF-Quote		☐	USD 251.10	USD 251.10	Debayan Biswas, 04/12/2023, 19:3

Fig: Contacts in Salesforce CRM

1.4.3 Email Template

The CRM process demands a proper email communication starting from Customer enquiries to Order Delivery. There is to-and-fro email communication between Customers and Sales Representative. So, we have created different email templates for each scenario which is mentioned in the figure below.

Edit | Del	Customer: Mail with Product Price	Text	✓	Notification to Customer with Product price details
Edit | Del	Customer: Order Confirmation	Text	✓	Notification to Customer for order confirmation
Edit | Del	Customer: Order Feedback	Text	✓	Notification to Customer for Feedback
Edit | Del	Leads: New assignment notification	Text	✓	Internal notification to lead owner when new lead is assigned.
Edit | Del	Leads: Lead email response	Text	✓	Auto-response when new lead is submitted online.
Edit | Del	Vendor: Mail for Price enquiry	Text	✓	Internal notification to vendor when new product inquiry is generated.

Address Information

From Address	debayan33@gmail.com
From Name	Debayan Biswas
To Address	ishitak834@gmail.com
CC Address	
BCC Address	debayan33@gmail.com

Message Content

Subject	PineApple: Thank you for your inquiry
Text Body	Dear DEL CRAVEN, Thank you for your interest in PineApple. I will contact you shortly with the product information. Sincerely, Layla Brown The Team at PineApple

Delete

Fig: Email Template: Reply to Customer's First Enquiry

2. Reports and Management Dashboards

Using Power BI, the development is easily depicted and analyzed for Pineapple. The dashboards we use here for Pineapple are:

2.1 Sales Dashboard (Analytical FMCG)

The Sales Dashboard provides an overview of the sales for Pineapple, an electronic reseller company, using Power BI.

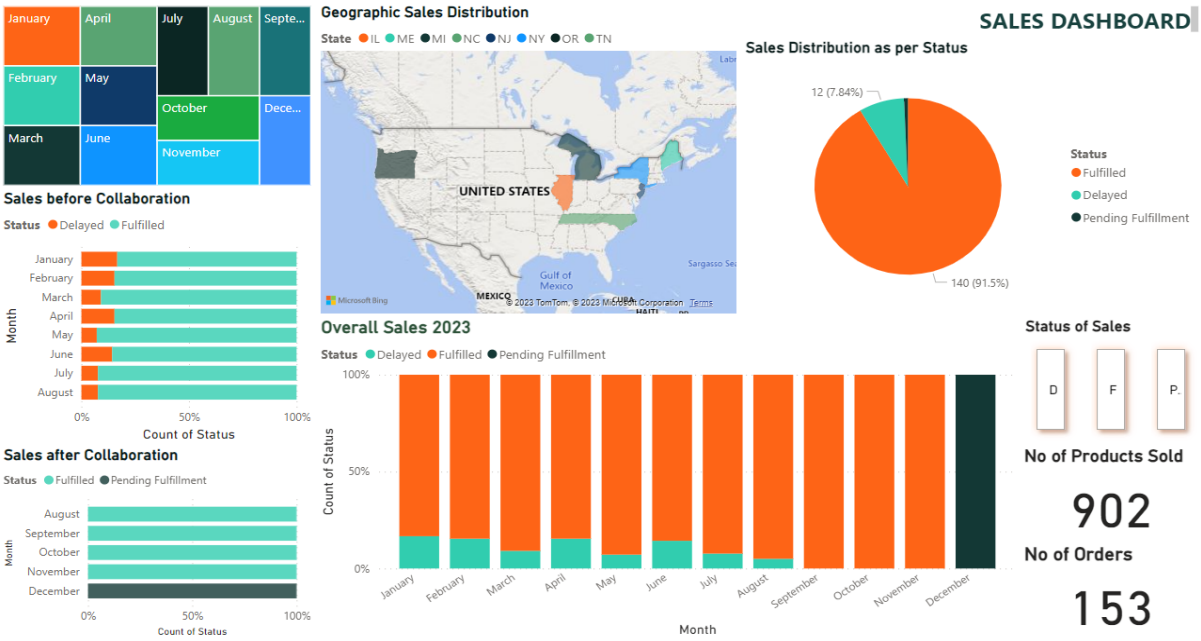


Fig: Sales Dashboard (FMCG)

The dashboard follows the Analytical Fast-Moving Consumer Goods model to provide comprehensive insights into sales performance. The dashboard is used primarily to empower Pineapple's decision-makers with real-time, actionable insights to optimize sales strategies, monitor product performance, and enhance overall business performance.

Sales Overview:

Key Metrics: Displayed prominently are total sales, number of orders, providing a quick snapshot of the company's financial health monthly along with map overview.

Trend Analysis: Time-based visualizations highlighting sales trends, enabling quick identification of patterns and anomalies.

Geographical Analysis: A map-based visualization displaying sales performance across different regions, helping identify high-performing and underperforming areas. The trend of the sales is depicted as per the states in USA.

2.2 Revenue Dashboard

The Revenue Dashboard is designed to provide a holistic view of revenue streams, customer segments, and key metrics essential for strategic decision-making.

Total Revenue Overview:

Revenue Metrics: A prominent display of total revenue, revenue growth, and revenue distribution across various product categories.

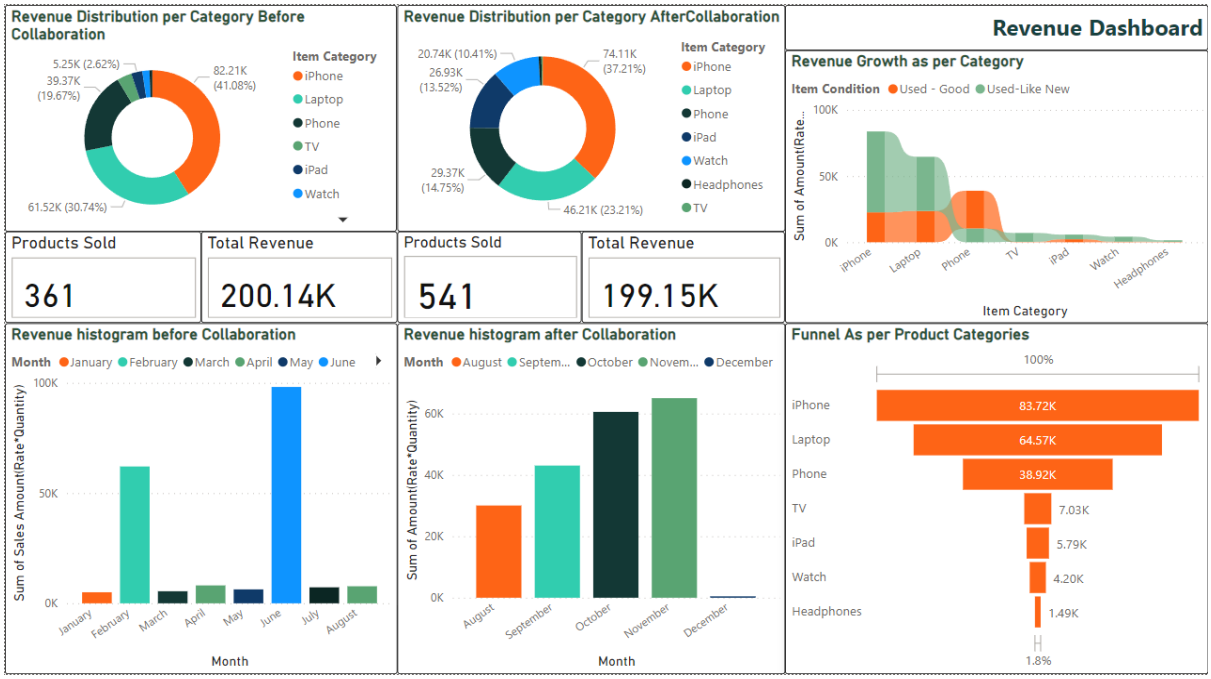


Fig: Revenue Dashboard

Product Revenue Analysis: *Top Revenue-Generating Products:* Identification of the highest contributors to overall revenue.

Product Category Breakdown: Visualization of revenue distribution among different product categories.

2.3 Customer Feedback Dashboard

Fig: Customer Satisfaction and NPS Dashboard

The Customer Feedback Dashboard helps to get insights on the feedback provided by the customer on every product and a summarized version of the overall rating provided. The Net promoter score is calculated by subtracting the percentage of detractors (ratings from 1-3 out of 5) from the percentage of promoters (ratings ranging from 4-5 out of 5) in the review ratings provided for Pineapple's services.

The dashboard contains the NPS scores for both the timeline, i.e. before and after the collaboration with us for their business solutions.

3. Demonstration of the features of CRM

To validate the functionality of our solution, we have populated the system with comprehensive test data that reflects real-world scenarios. This step was crucial in demonstrating the effectiveness of the implemented features. A detailed overview of the process has been mentioned in section 1.4.

The procedure involves initiating a new **Lead**, denoted as HOTSOF, and subsequently transforming the **Lead** into an **Opportunity** and **Quote**. This transformation includes the addition of the **Product** Apple Airpod 2 in our test case. Following the determination of pricing from both the **Vendor** and the **Customer**, a **Sales Order** (00000125, following our test case) is generated, associating it with the converted **Lead**, now identified as a **Customer**. The communication between the **Customer** and **Sales Representative** follows a standard email communication procedure to maintain standardization in the process of CRM.

4. Collaboration and Workload Distribution

The following table outlines the percentage distribution of the collaborative effort of each team member.

Team Members	**Dataset**	**Salesforce CRM**	**Power BI Dashboard**	**Report**	**Workload %**
Debayan Biswas 22242821	30	30	40	32	**33%**
Ishita Kundu 22242091	45	45	20	26	**34%**
Pinaki Pani 23112573	25	25	40	42	**33%**
Total Weight	100	100	100	100	**100%**

With the collaborative effects of all the team members, the goals and the challenges encountered were promptly addressed. The above workload division matrix sums up to 100% where the shared percentage for Debayan is 33, for Ishita the number lies at 34 and Pinaki's metric stands at 33. The total weightage for all the tasks being 400 points, when shared among all the members then the overall workload is almost equally divided.