ABSTRACT

The CRM Application for Jewel Management is a Salesforce-based solution designed to streamline customer relationship management, sales tracking, and inventory operations within a jewelry business. Developed on the Salesforce platform, this application integrates key CRM functionalities with customized modules for jewel product management, order processing, and customer engagement.

The system enables jewel store owners to efficiently manage leads, track customer preferences, monitor inventory levels, and automate follow-ups using Salesforce automation tools such as Process Builder, Flows, and Apex triggers. Dashboards and reports provide real-time insights into sales performance, helping businesses make data-driven decisions.

As a Salesforce Developer, the project focuses on customizing Objects, Fields, Validation Rules, Lightning Components, and Workflows to meet the unique needs of jewelry management. The application enhances operational efficiency, improves customer satisfaction, and ensures accurate tracking of high-value assets in the jewelry business through a secure and scalable CRM environment.

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CHAPTER 1

PROJECT OVERVIEW & SETUP

1.1 INTRODUCTION :

The CRM Application For Jewel Management project was initiated to create a centralized, cloud-based platform for handling all core operations of a modern jewelry business. Built on the Salesforce Lightning Platform, the application aims to replace outdated, fragmented systems (or manual processes) with a single source of truth for managing customer interactions, tracking high-value jewel inventory, streamlining the order-to-cash cycle, and providing management with real-time analytics.This project leverages Salesforce's custom object model, automation tools (Flows/Triggers), and robust security features to deliver a scalable, industry-specific solution.

1.2 PROBLEM STATEMENT :

Prior to this implementation, the jewel management process was hindered by several critical pain points. Inventory tracking was primarily spreadsheet-based, leading to frequent data inconsistencies, misvaluation of assets, and slow audit processes. The Customer Relationship Management (CRM) was fragmented, making it impossible for sales teams to offer personalized service or effectively track customer journey progression.

Furthermore, the lack of centralized reporting and dashboards prevented management from making timely, data-driven decisions on purchasing and pricing strategies. The core problem was a non-integrated ecosystem that could not meet the demands for security, scalability, and operational efficiency required for a high-value retail business

1.3 Solution Overview:

The implementation of the Jewel Management CRM on the Salesforce Platform provides a comprehensive solution to the business's challenges. The project utilized Custom Objects (e.g., Jewel, Vendor, Order) to model the unique data structure of the jewelry business accurately. Operational efficiency was achieved through Flows and Apex Triggers, automating routine tasks such as price calculation and inventory adjustments.

Crucially, the granular control provided by Profiles and Permission Sets ensures the highest level of security and compliance for handling valuable inventory and customer information. This solution delivers a unified, scalable, and secure system, transforming the operational capabilities of the business

CHAPTER 2

DATA MODEL & CUSTOMIZATION

2.1 OBJECT CREATION :

We created five essential custom objects: **Jewels Customers**(our core inventory asset), **Customer Orders**, **Prices**,**Items** and **Billings**. The screenshots below illustrate the object manager interface, confirming the successful creation and deployment of these custom entities on the Salesforce platform, thus establishing the single source of truth for all transactional and inventory data.

2.1.1Object Creations For Billing:

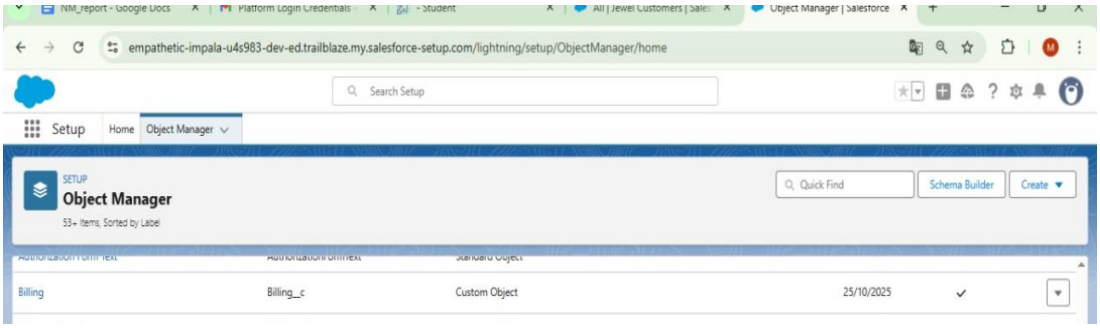

Fig 2.1.1 Object Creations For Billing

2.1.2 Object Creations For items & Jewel Customer :

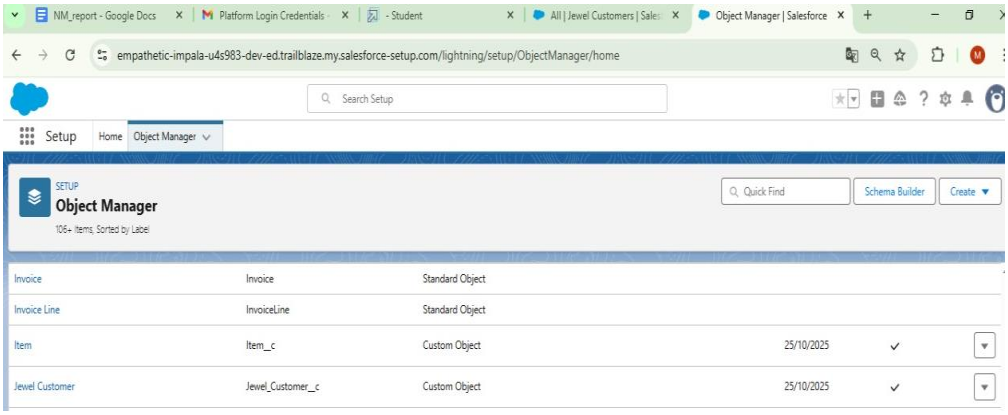

Fig 2.1.2 Object Creations For items & Jewel Customer

2.2 FIELD CUSTOMIZATION & DATA TYPE:

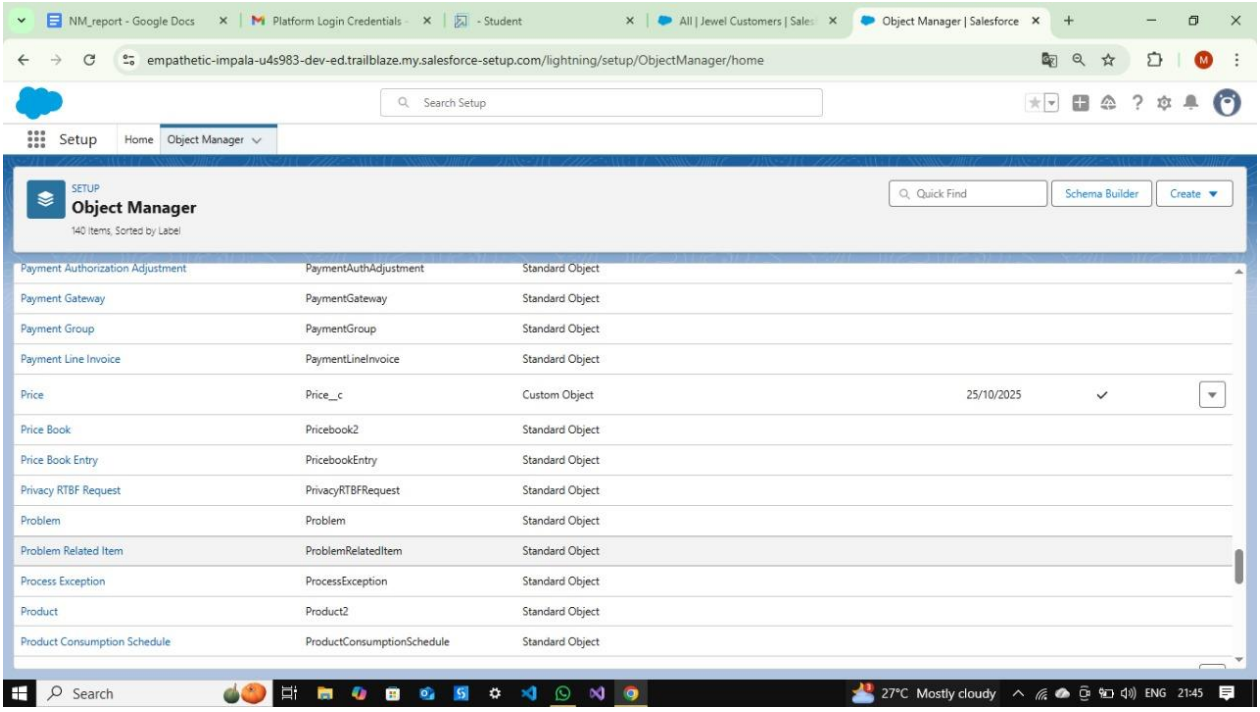

Fig 2.2.1 :Fields of Billing Object

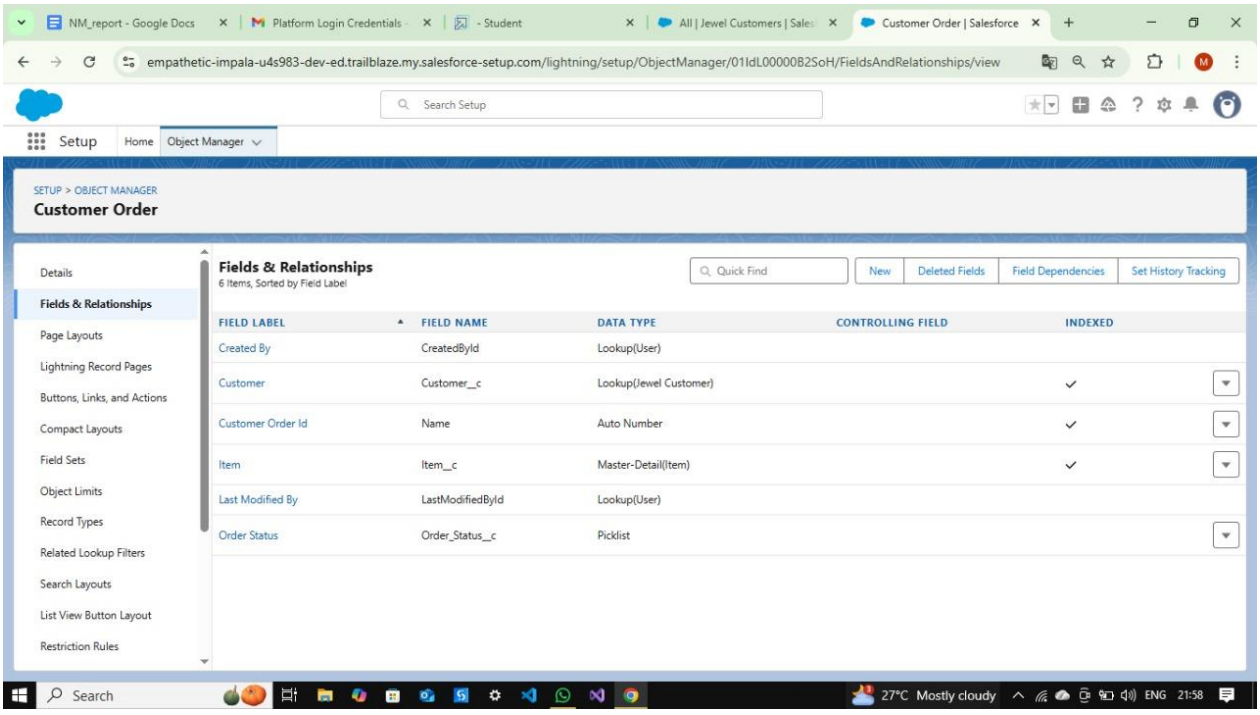

Fig 2.2.2.Fields of Customer Order Object

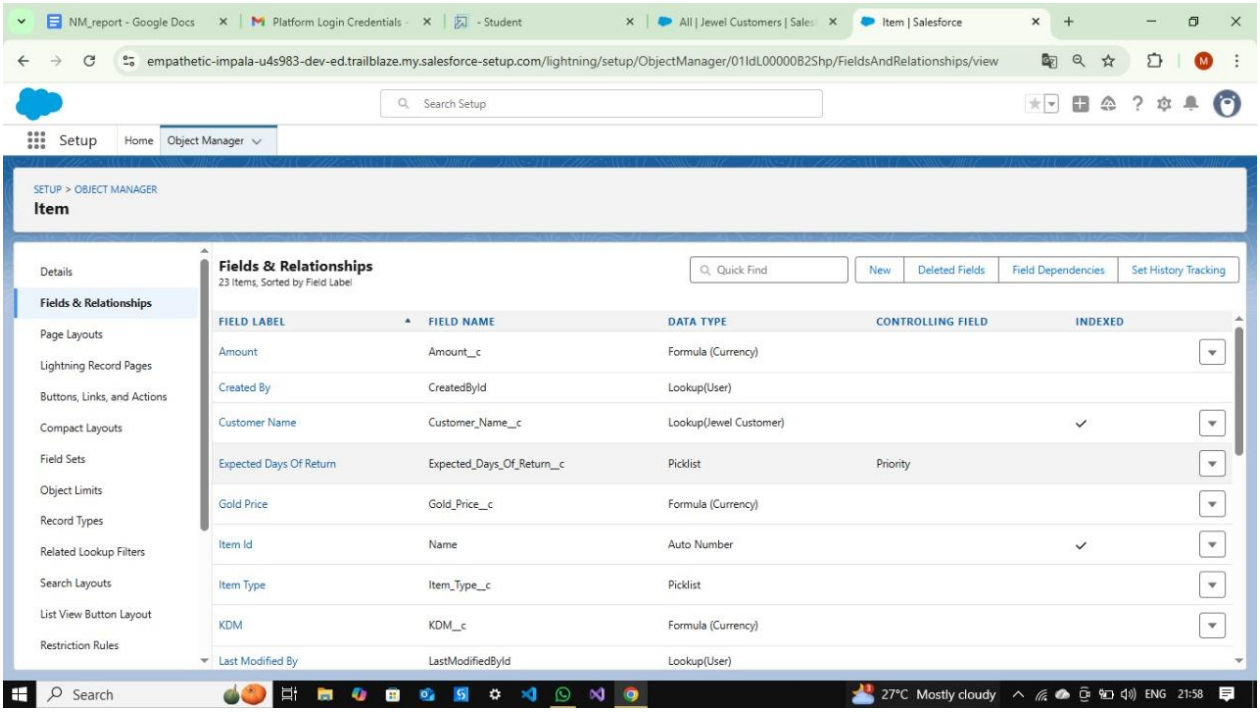

Fig 2.2.3 Fields of Items Object

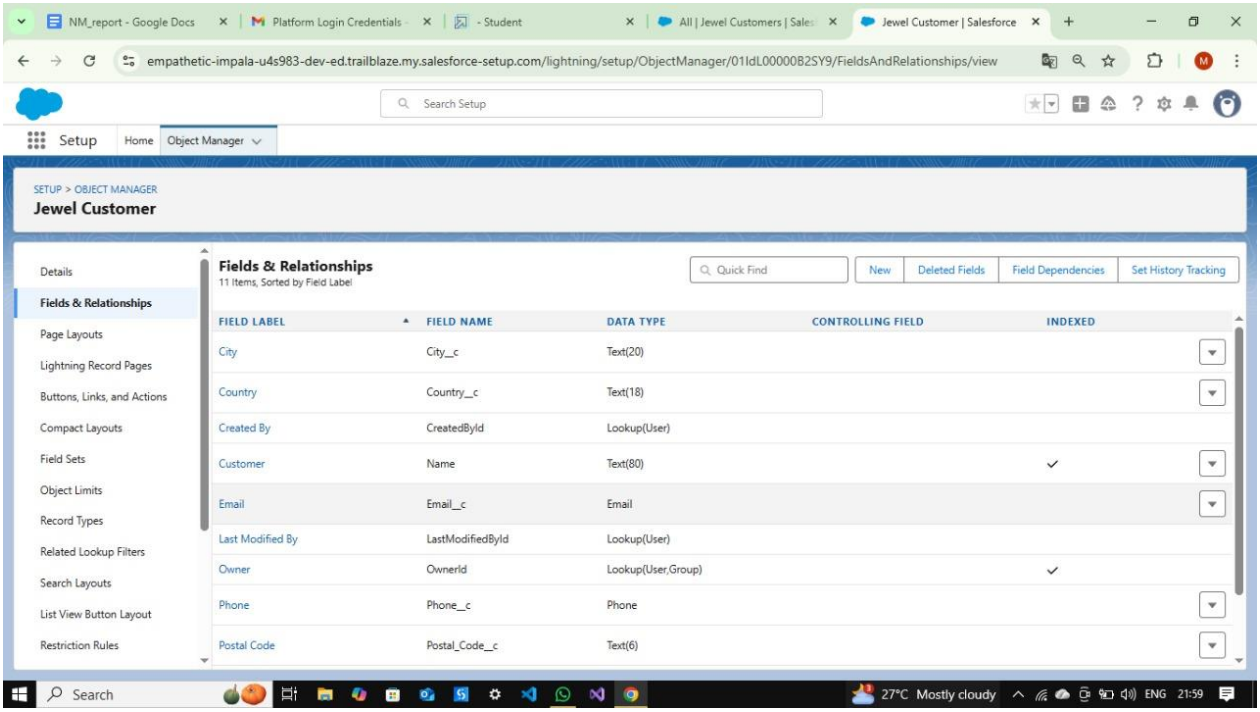

Fig 2.2.4 Fields of Jewel Customer Object

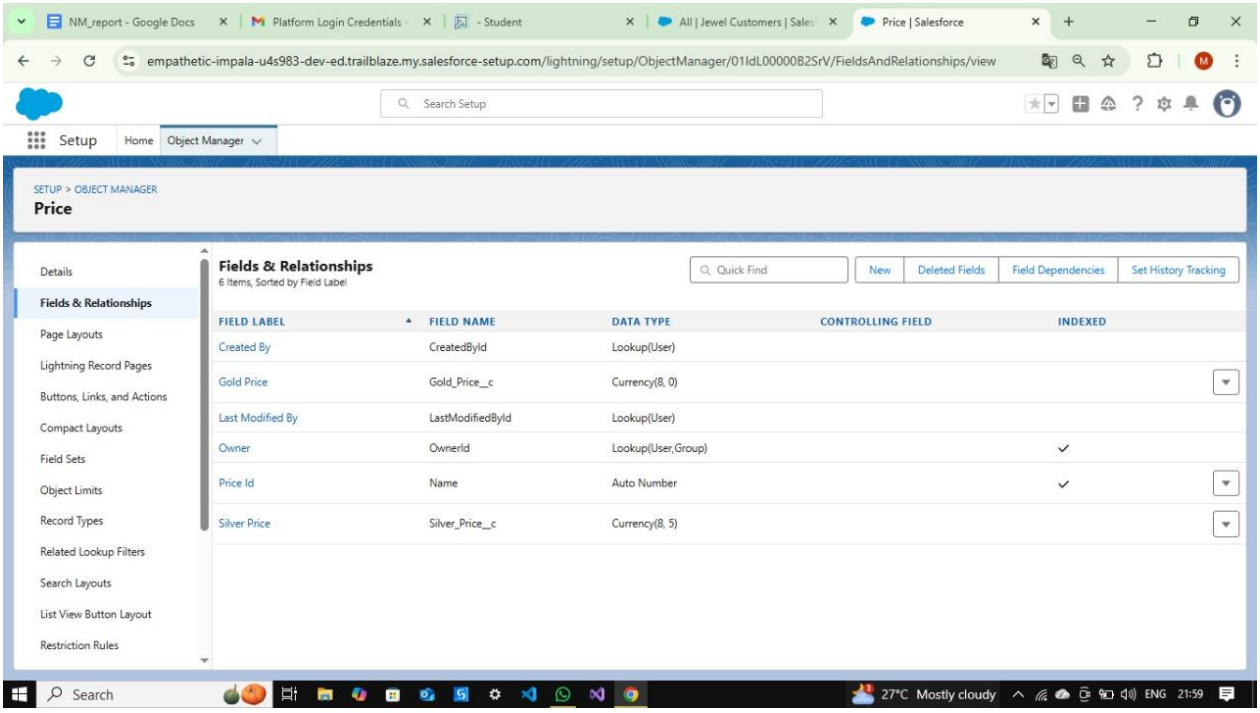

Fig 2.2.5 Fields of Price Object

2.3 TABS &RECORD TYPES :

Tabs and Record Types are configured to optimize both user navigation and data organization within the Jewel Management CRM. Tabs function as the core navigational anchors within The Lightning App, allowing users (like Sales Reps and Inventory Managers) immediate access to the main object pages—specifically, the Jewels, Customers, and Customer Orders tabs—to efficiently view and manage records.

Crucially, Record Types are utilized on the Jewels object to enforce process separation by distinguishing between high-value 'Finished Jewelry' ready for retail sale and 'Raw Materials/Components' used for custom manufacturing, ensuring that each type is tracked with the correct fields, picklist values, and appropriate Page Layouts.

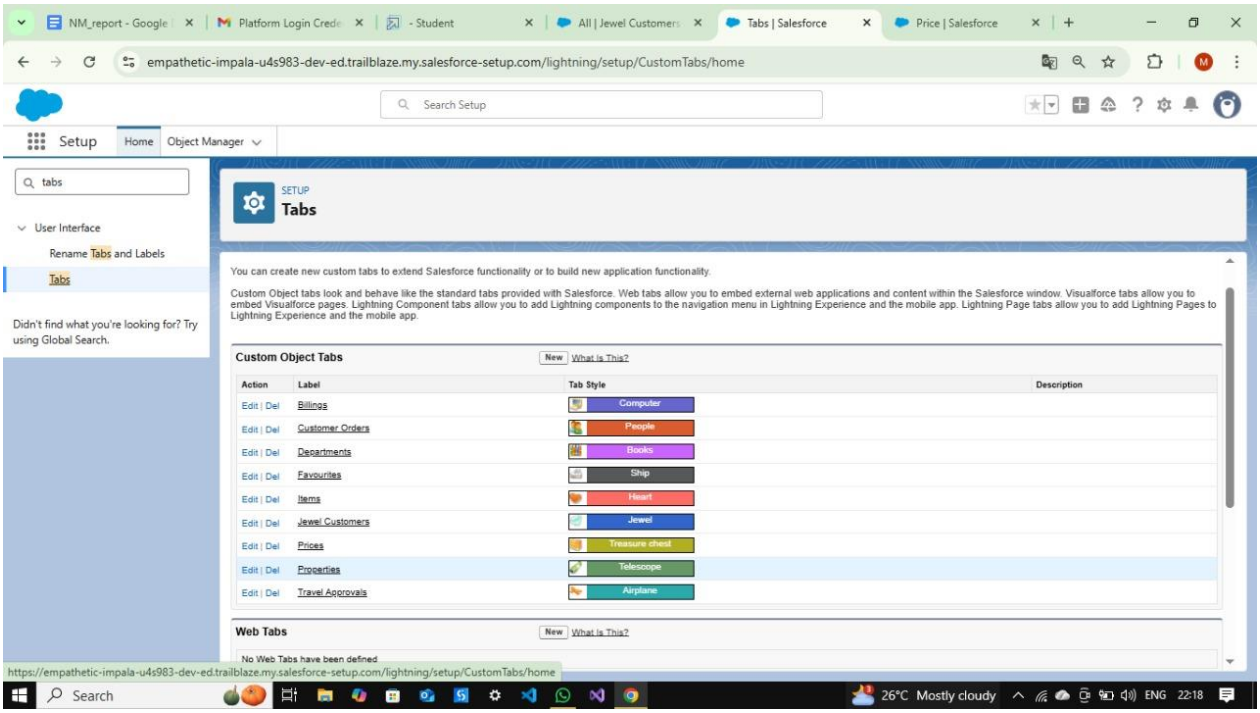

Fig 2.3.1 Tabs & Record Types

CHAPTER 3

USER INTERFACES & EXPERIMENTS

3.1 LIGHTNING APP DESIGN & CONFIGURATION:

3.1.1 App Setup:

- Name: Jewellery Inventory System
- Look and Feel: We customized the app with a specific logo and color scheme to match our branding.
- Users: The app is available to all key team members, including Sales Users and Inventory Managers.
- Quick Tools (Utility Bar): We added useful shortcuts at the bottom of the screen (the Utility Bar), such as Notes and History, to help users work faster.

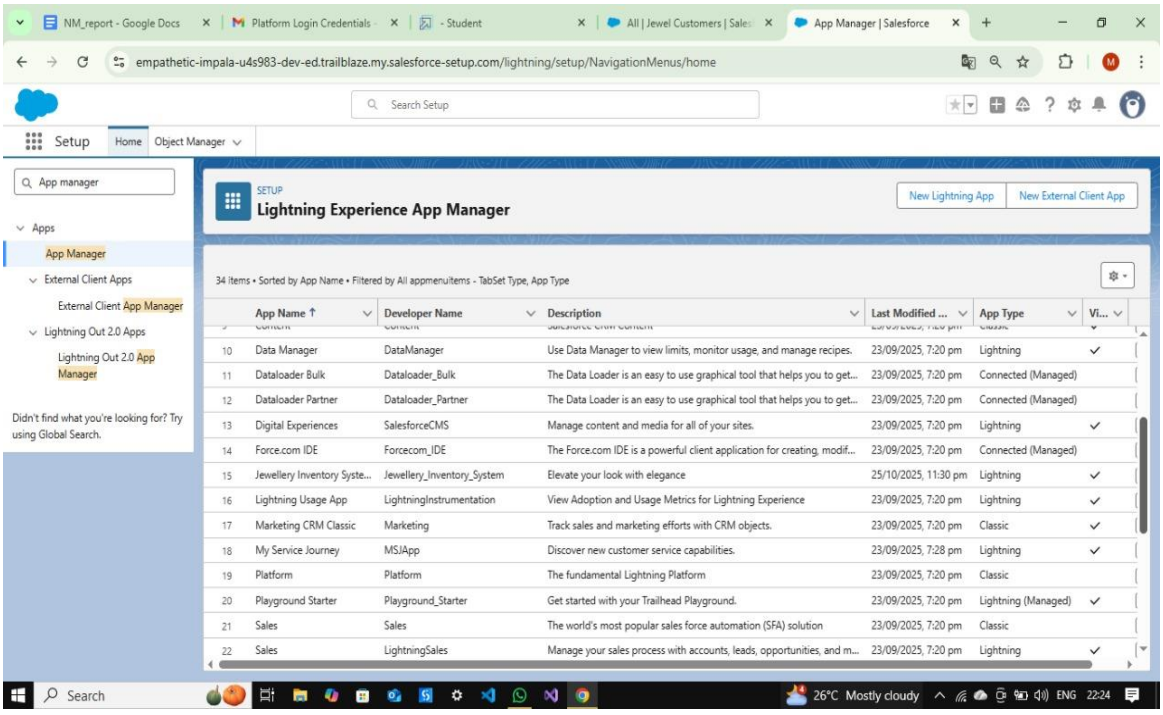

Fig 3.1.1 Lightning App Setup

3.1.2 Navigational Items:

- Home – Displays overall summary and quick actions.
- Customers – Stores customer profiles and contact details.
- Items – Shows all jewelry products with name, type, weight, and price.
- Billing – Displays billing records and transaction details.
- Price Report – Provides price comparison and analysis report.
- Dashboard – Shows sales performance and business insights.
- Reports – Generates detailed reports for items and sales.

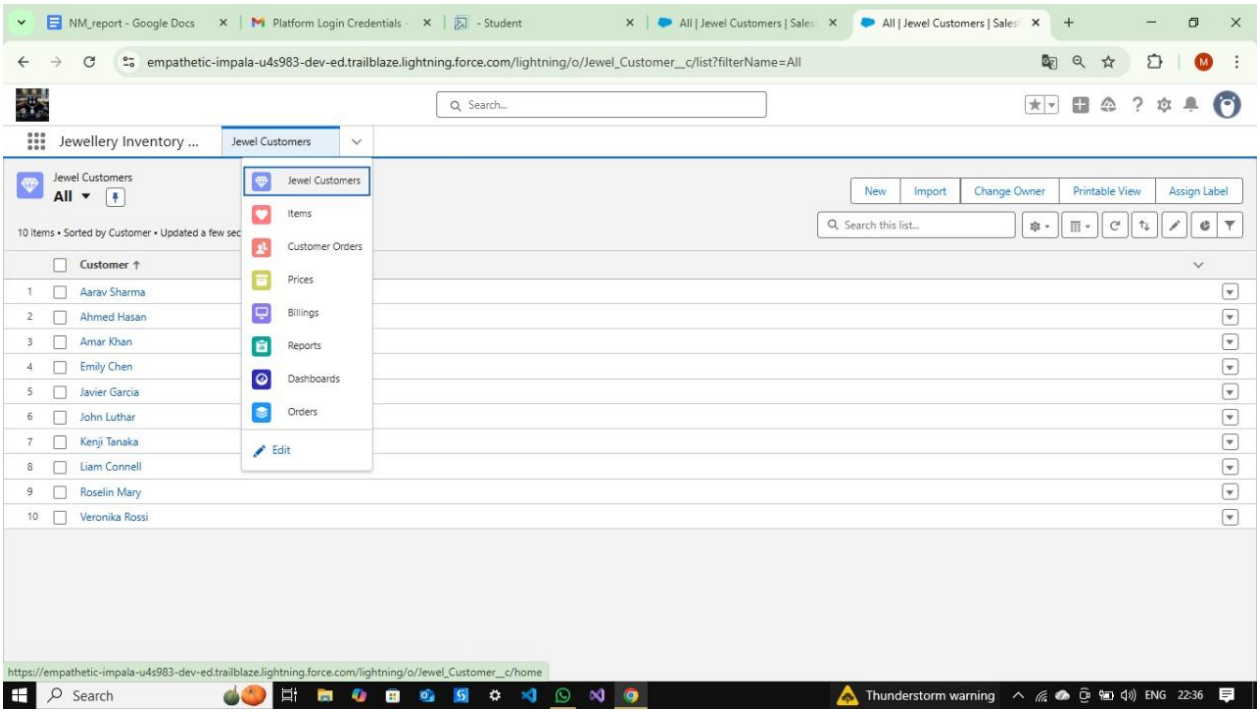

Fig 3.1.2 Navigational Items

3.2 Page Layouts:

Based on the specific data requirements for the Jewels object (your inventory item), two specialized Page Layouts were created: one for Gold items and one for Silver items. These layouts ensure that users tracking gold inventory only see and interact with relevant fields like Karat Value and Gold Weight, while users handling silver inventory see fields related to Silver Grade.

This tailored approach optimizes the user interface, prevents data entry errors, and improves efficiency within the Jewellery Inventory System

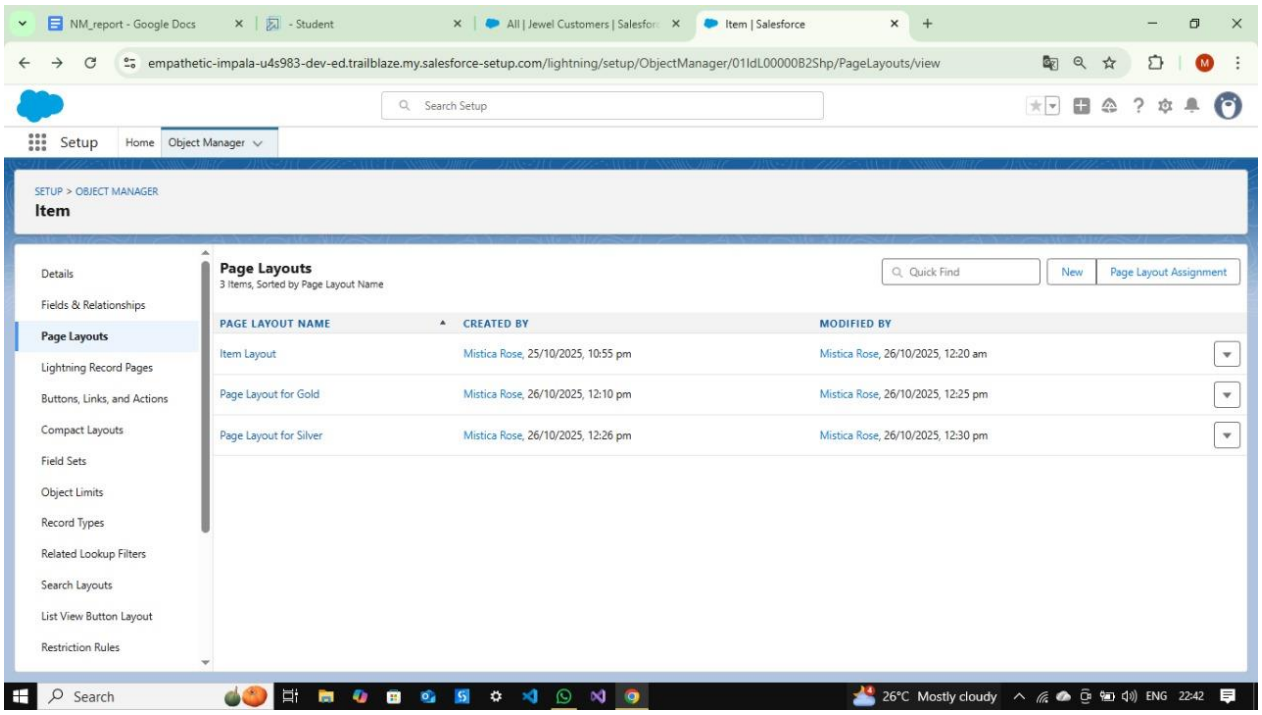

Fig 3.2.1 Page Layout for Items

3.2.2 Page Layout For Gold :

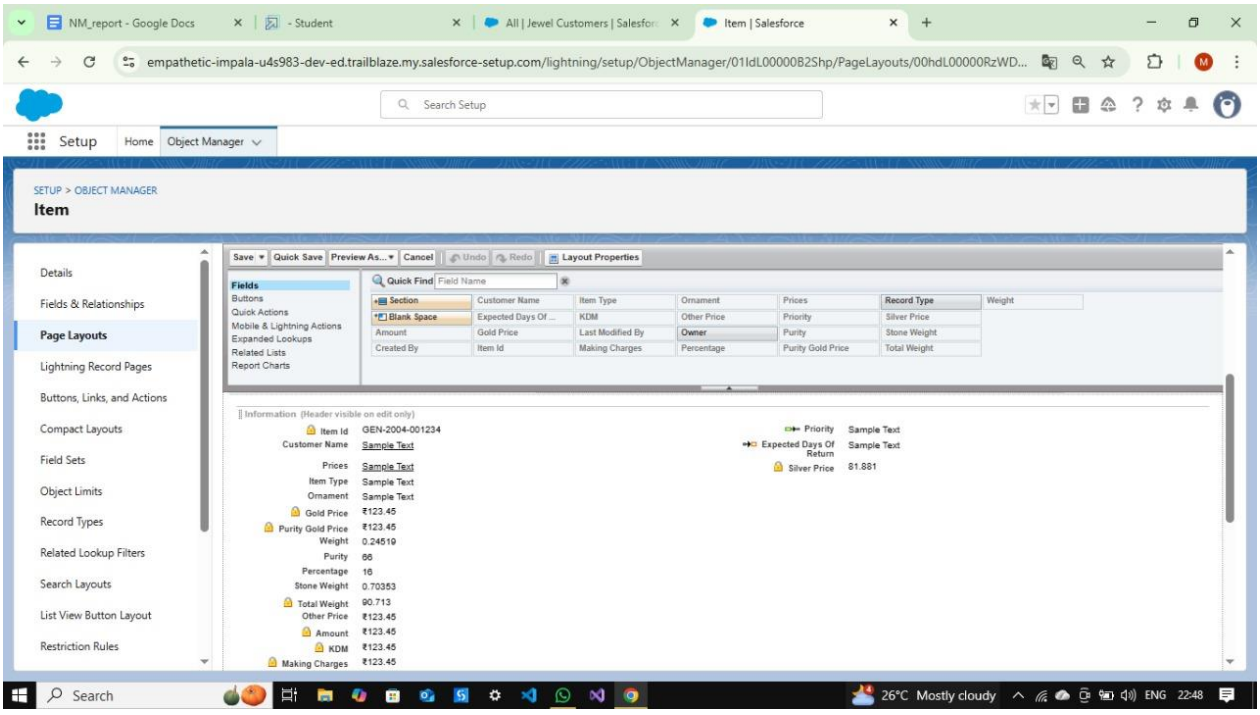

Fig 3.1.2 Page layout for gold

3.2.3 Page Layout For Silver :

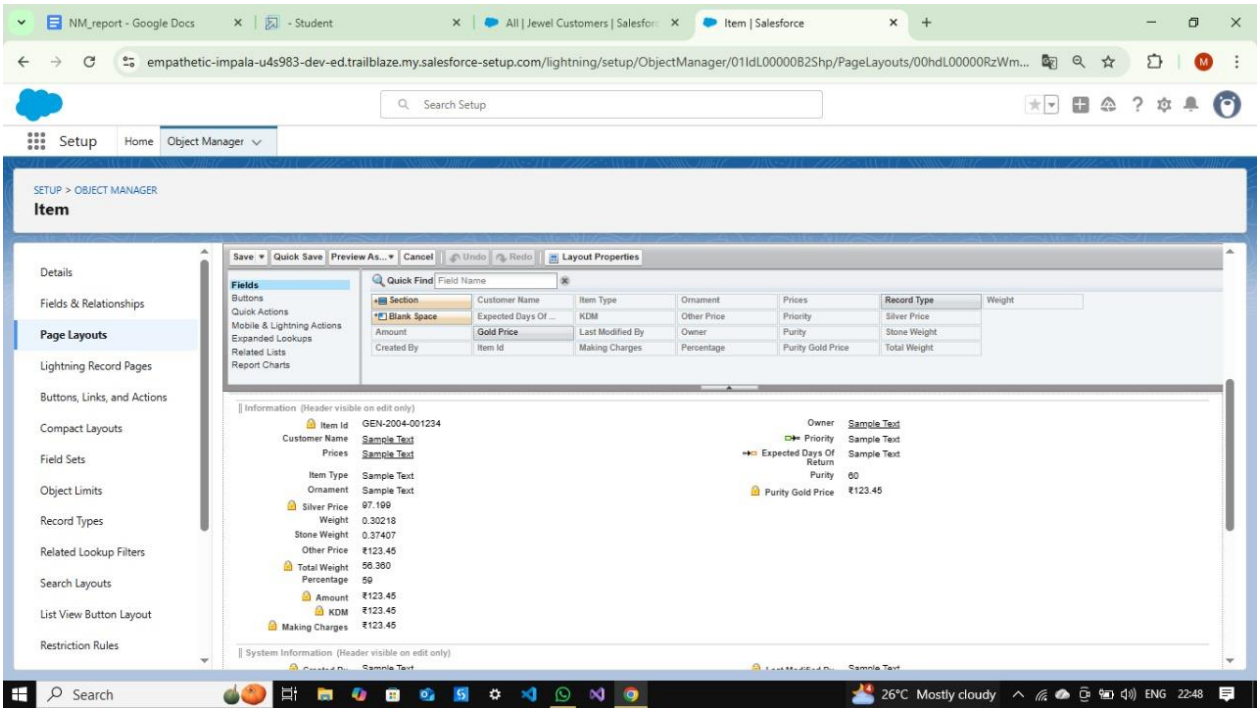

Fig 3.2.3 Page Layout For Silver

CHAPTER 4

SECURITY, ACCESS & USERS

4.1 PROFILES & BASELINE PERMISSIONS:

4.1.1.Gold Smith Profile:

- Cloned From: System Administrator Profile.
- Who it's for: People in charge of inventory, pricing, and managing all items.
- What they can do: This profile has full access (can Read, Create, Edit, and Delete) all the main custom objects: Jewels, Customers, Customer Orders, Prices, and Billings. They have the highest level of trust.

4.1.2. Worker Profile:

- Cloned From: Salesforce Platform User Profile.
- Who it's for: Floor staff or workers who need limited access.
- What they can do: This profile has controlled access to only the necessary items: Items/Jewels, Prices, and Customer Orders. Their ability to delete or create new records is usually limited to keep the data safe.

4.2 Roles & Hierarchy:

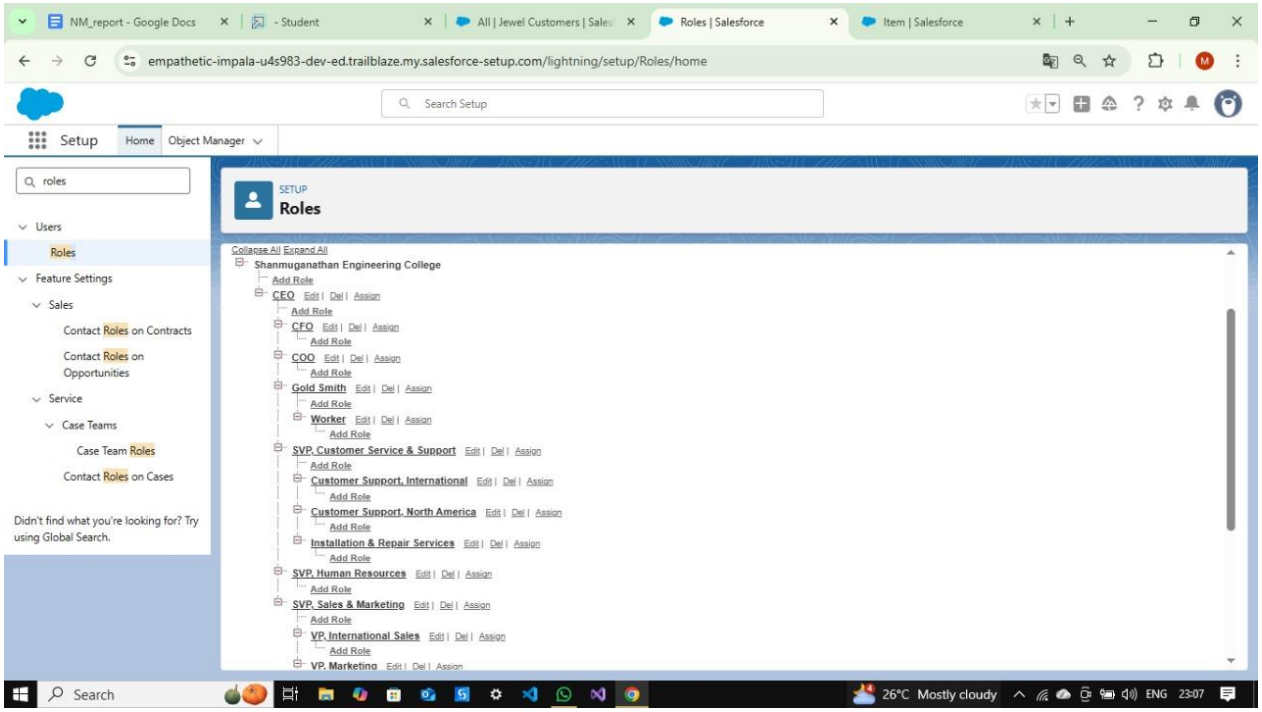

Fig 4.2.1 Field of Roles

4.3 Users Management & Licensing:

The Users section of the Jewellery Inventory System defines the individuals who have access to the application, linking them directly to the security framework established by the Profiles. Users like John David and Kol Mikalson were created and assigned the 'Worker' role, granting them the baseline permissions necessary for day-to-day operations like order entry and inventory updates.

Crucially, the user Niklaus Mikalson was assigned the higher-level 'Gold Smith' profile, reflecting their enhanced responsibilities and granting them broader access to critical data and functionalities within the system. This management step ensures that every person accessing the CRM is accounted for and operates under the correct set of security privileges.

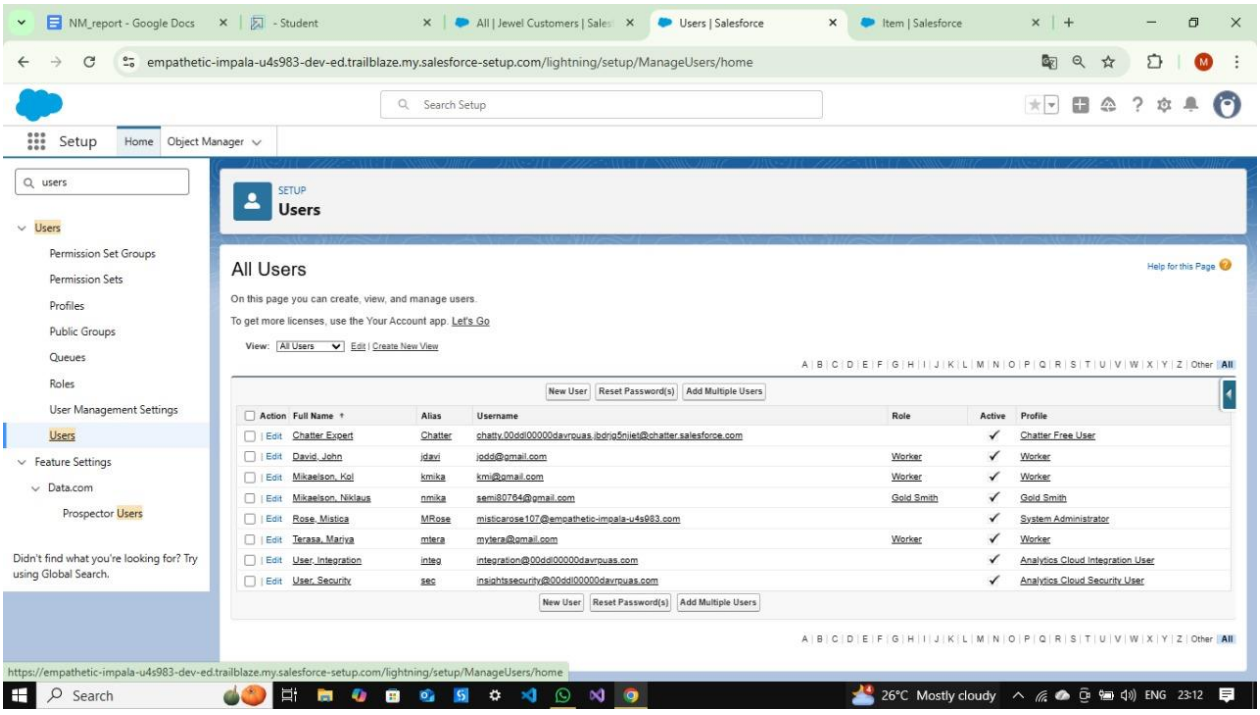

Fig 4.3.1 User management & Lisencing

CHAPTER 5

AUTOMATION & BUSINESS LOGIC

5.1 TRIGGER DEVELOPMENT (Apex Code) :

Apex Class Creation:

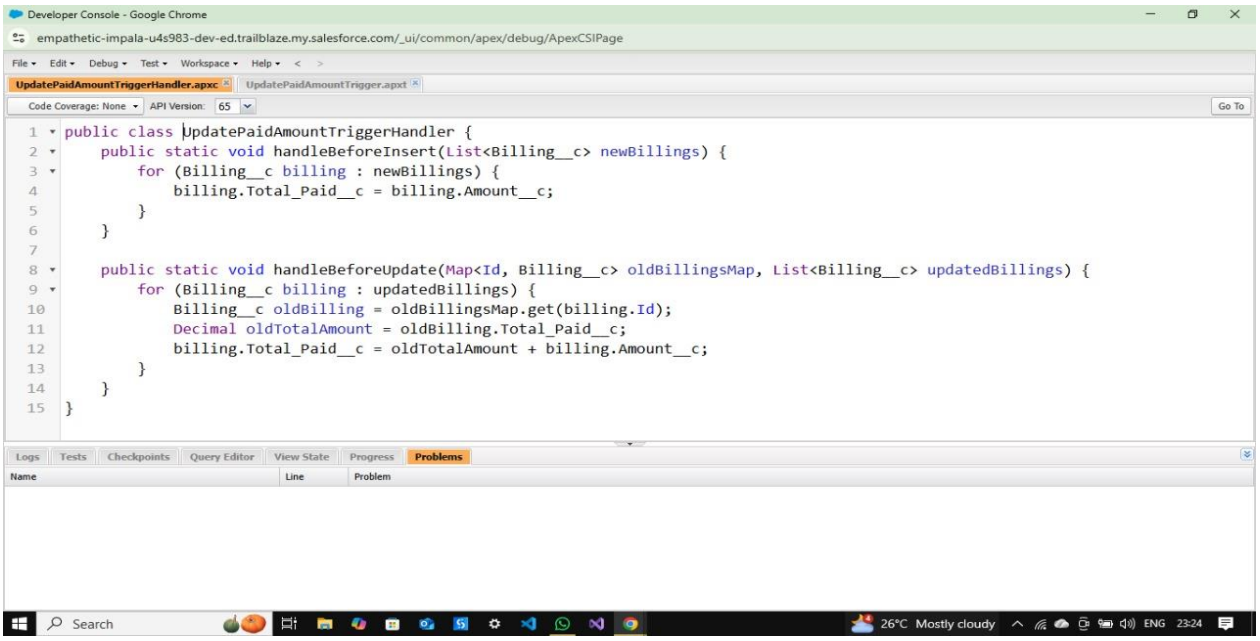

Fig 5.1.1 Apex Class Creation

Apex Trigger Creation:

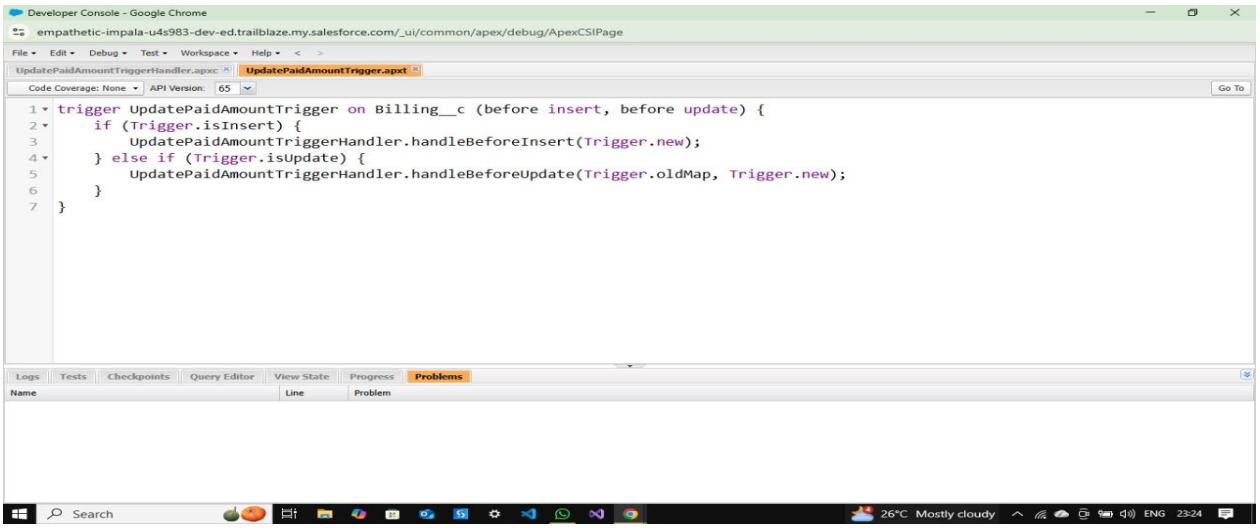

Fig 5.1.2. Apex Trigger Creation

5.2 Validation Rules Implementation:

Validation Rules are the safety checks we built into the system to stop people from saving bad or wrong data. They help keep our inventory and order information clean and trustworthy.

The primary goal of implementing Validation Rules was to:

1. Prevent Data Inconsistencies: Stop users from entering illogical or incorrect values (e.g., negative weights or conflicting dates).
2. Ensure Business Compliance: Guarantee that mandatory process steps are followed before a record's status can be updated.

5.3 Flows(Process Builder/Workflow rule):

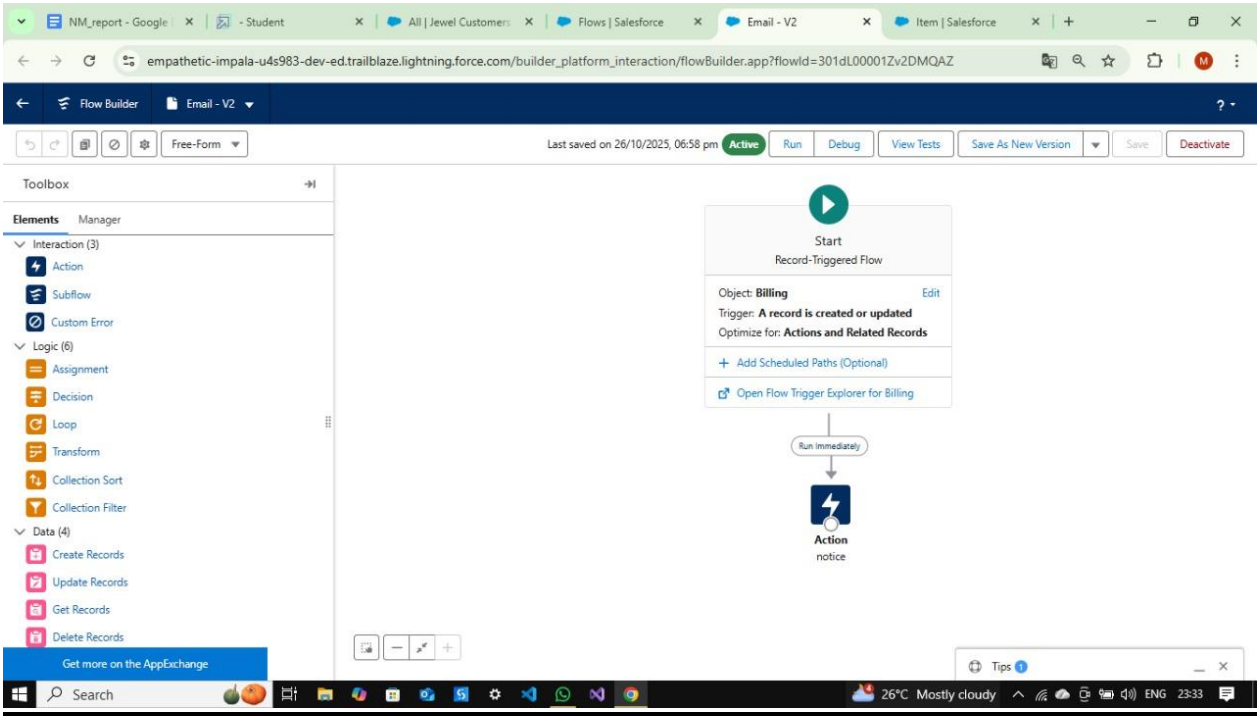

Fig 5.3.1 WorkFlow

What the Flow Does:

1. Trigger: It starts automatically any time a Billing record is created or updated.
2. Action: When it starts, it performs a single action called "notice."
3. Purpose: This likely means the Flow immediately sends a notification or alert to the right person (like the Accounting Manager).

CHAPTER 6

REPORTING & ANALYTICS

6.1 REPORT CREATION :

Reports are essential for transforming raw application data into valuable business intelligence. In the Jewellery Inventory System, Report Creation involves defining the specific conditions, fields, groupings, and summaries needed to answer business questions about inventory, sales, and customers.

6.1.1.Prices Report :

The Prices Report displays all jewelry products along with their details such as product name, metal type, weight, making charges, and total price. This report is created using Salesforce Reports and Dashboards to help the jeweler easily track and manage product pricing. It gives a clear view of all items in the system and helps in quick price comparison and decision-making.

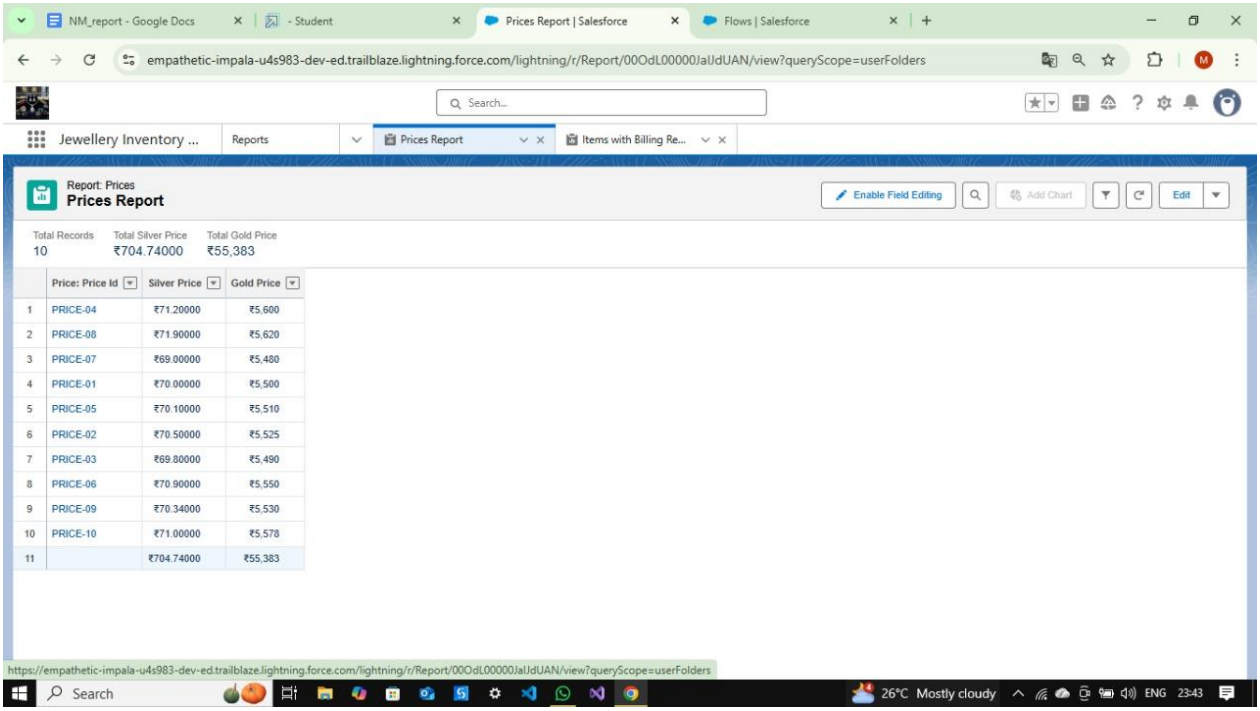

Fig 6.1.1 Prices Report

2.Items with Billing Report:

The Item with Billing Report shows complete details of jewelry items along with their customer billing information. It includes fields such as Item Name, Quantity, Unit Price, Total Amount, Customer Name, and Bill Date. This report is created using Salesforce Reports and Dashboards to help track sales transactions and billing records in one place.

It allows the jeweler to easily monitor sold items, calculate total revenue, and maintain accurate billing data for each customer. This improves business transparency and helps in efficient financial management within the CRM application.

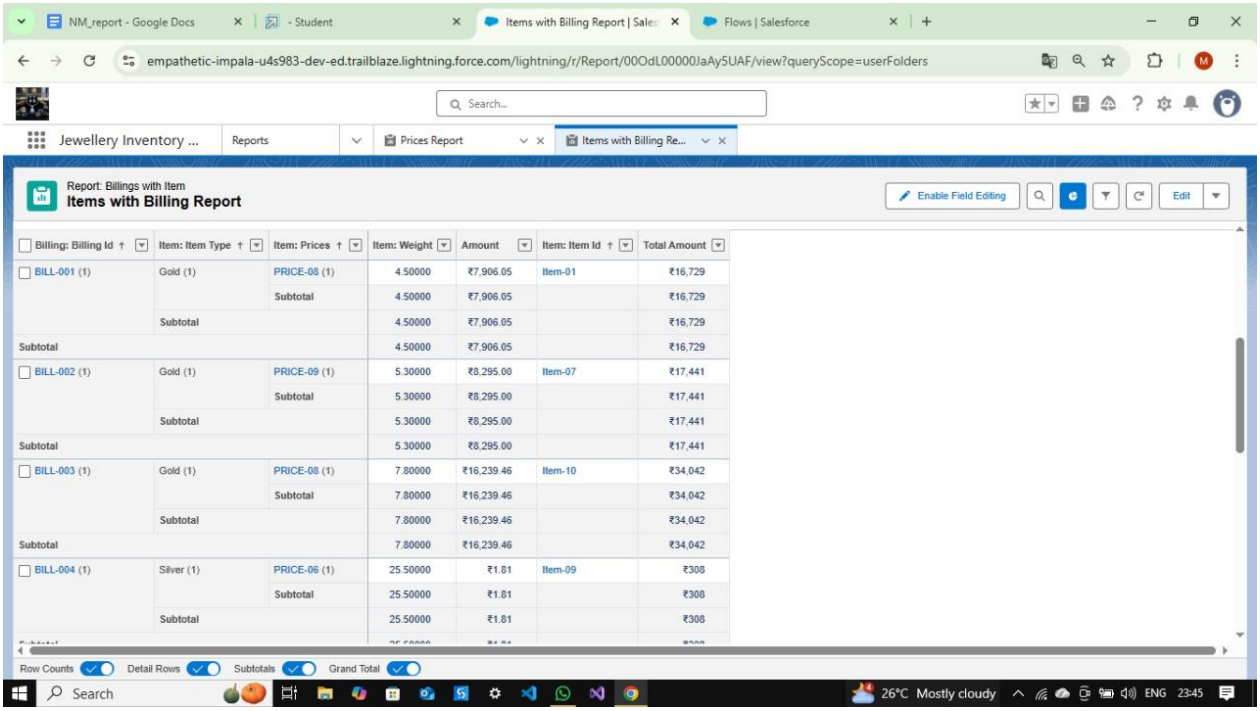

Fig 6.1.1. Items With Billing Report

6.2 Dashboards For KPI's:

Dashboards are the analytical front-end of the Jewellery Inventory System, serving as a visual display of key business metrics pulled directly from underlying Reports. They are crucial because they transform static data into actionable, real-time insights for management and stakeholders.

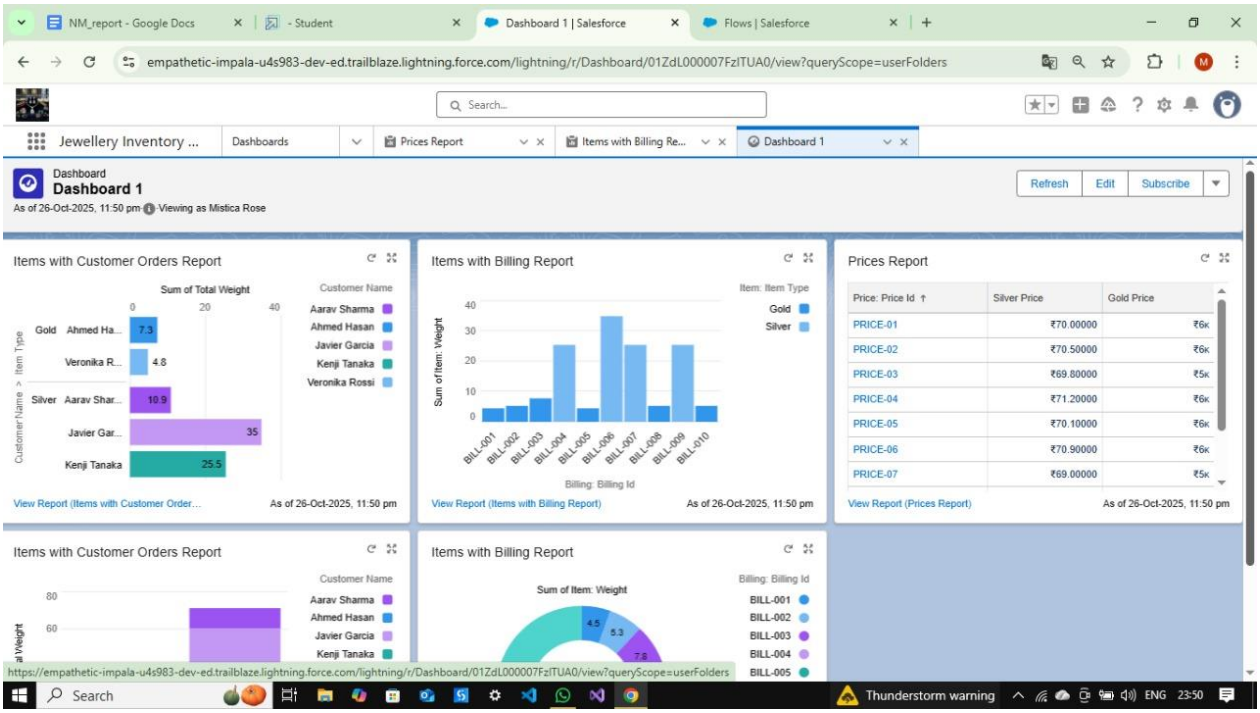

Fig 6.2.1 Dashboard for Report

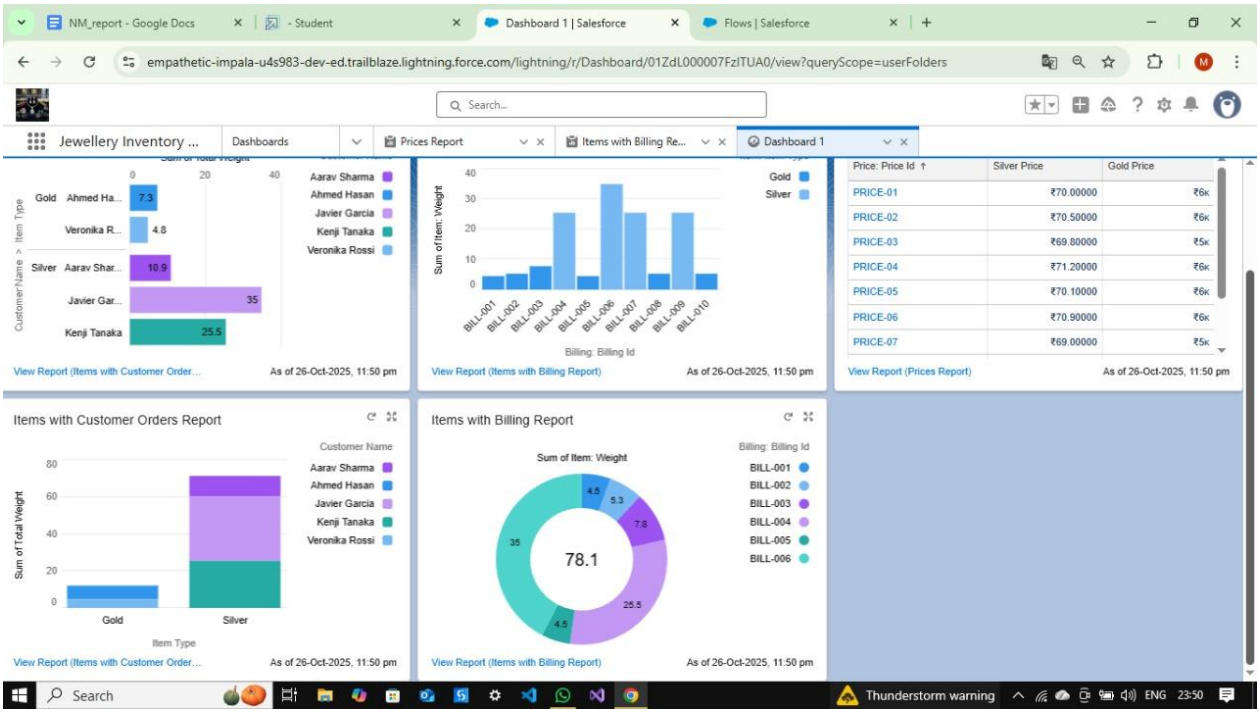

Fig 6.2.2 Dashboard for Report

CHAPTER 7

CONCLUSION

The CRM Application For Jewel Management project, developed on the Salesforce Platform, successfully delivered a comprehensive, integrated, and secure solution for the jewelry business. By completing all steps of the defined workflow—from Object Creation (Jewels, Customer Orders) and establishing precise Security Profiles (Gold Smith, Worker), to implementing UI Customization (Gold/Silver Page Layouts) and core Automation (Billing Flows and Validation Rules)—we achieved the project's primary goals.

The implementation of the "Jewellery Inventory System" Lightning App directly addresses the initial problems of data fragmentation and manual processes. The result is a system that enforces data quality (via Validation Rules), streamlines financial processes (via the Billing Flow), ensures data security (via Profiles and Users), and provides management with real-time insights through Reports and Dashboards. This robust digital foundation positions the business for increased operational efficiency, reduced data errors, and improved customer relationship management.