A CRM APPLICATION FOR WHOLESALE RICE MILL

1. Project Overview

This project is focused on A CRM application for wholesale rice mill , designed to streamline and simplify how much rice per day,how many were sold that rice and which type of rice all reports send to owners daily wise.The goal is to deliver a comprehensive solution by leveraging the power of customer relationship management (CRM) to enhance customer experiences, optimize store operations, and improve overall efficiency in the rice mill factory. Through this project, we aim to enhance and develop a user-friendly and feature-rich application that addresses the specific needs of a rice mill factory.

2. Objectives

Business Goals: Automate routine processes to minimize manual effort and errors. Streamline rice production and sales tracking for consistent operations.Allocate resources effectively by tracking inventory, rice types, and supplier data.Enable owners to make informed decisions through real-time and accurate reporting.Improve product availability and quality by monitoring production and sales trends.Foster customer loyalty by identifying and catering to the most frequent buyers.

Specific Outcomes: Daily production and sales reports provide clarity on business performance.Validation rules ensure accurate data entry, preventing costly errors.Automatic cost calculations reduce manual computation time. Rollup summary fields aggregate supplier data, providing insights into supply trends and demand fluctuations.

3. Salesforce Key Features and Concepts Utilized

Daily Sales and Production Reporting: Automatically tracks rice production, sales, and daily revenue.

Roll-Up Summary Fields: Aggregates rice supply data from child objects (rice details) to parent objects (supplier records).

Cross-Object Formula Fields: Displays the calculated amount directly on related records for

financial transparency.

Validation Rules: Provides user-friendly error messages when incomplete or incorrect entries are detected.

Role-Based Access Control: Role hierarchy grants full access to owners, while employers can only view and manage worker-related data.

Key Concepts Applied:

Object Relationships: Establishes master-detail and lookup relationships to connect rice details with suppliers and sales records.

Page Layout Customization: Tailors page layouts for easy data entry and better user experience.

Reports and Dashboards: Visualizes sales, production, and revenue data for better performance tracking.

Formula and Validation Rules: Ensures data accuracy and automates calculations across related objects.

4. Detailed Steps to Solution Design

Requirement Gathering and Analysis:

- Understand the rice mill's operational workflow (production, sales, and reporting).
- Identify key data points: daily rice production, rice types, sales, and customer details.
- Define reporting needs: daily revenue, most sold rice, and top customers.

Object and Relationship Design:

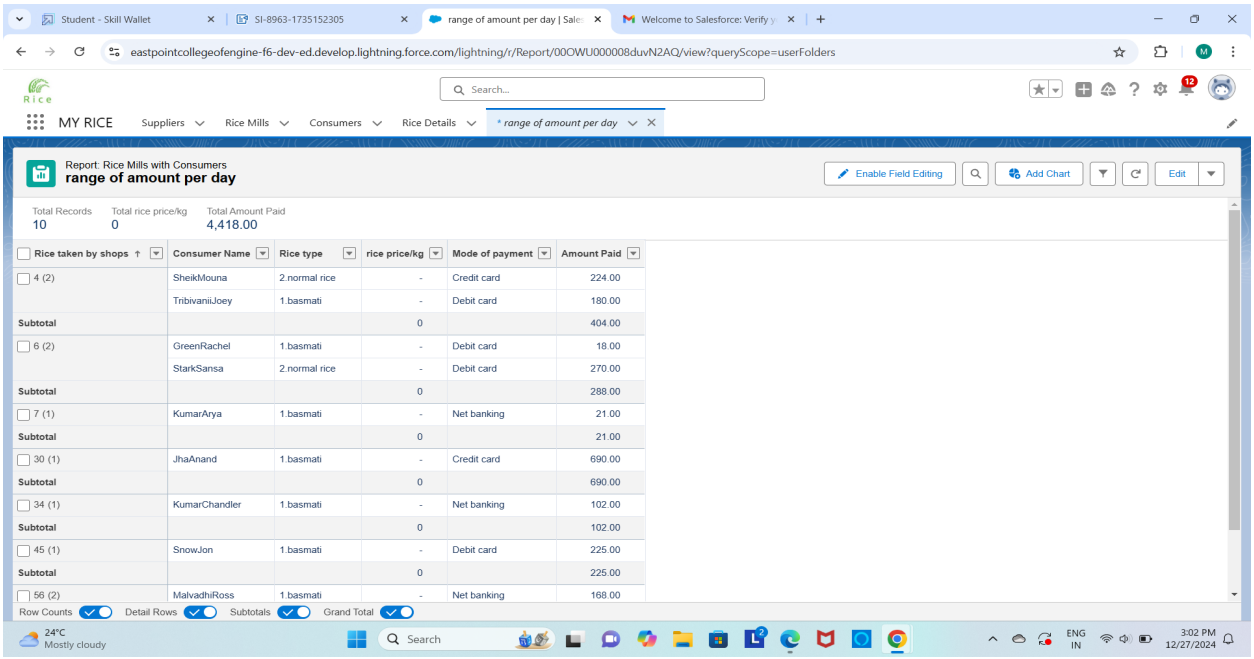
- Custom Objects: Create objects for Rice Production, Sales, and Customer Records.
- Relationships: Implement master-detail relationships to connect Rice Details with Suppliers and Sales records.

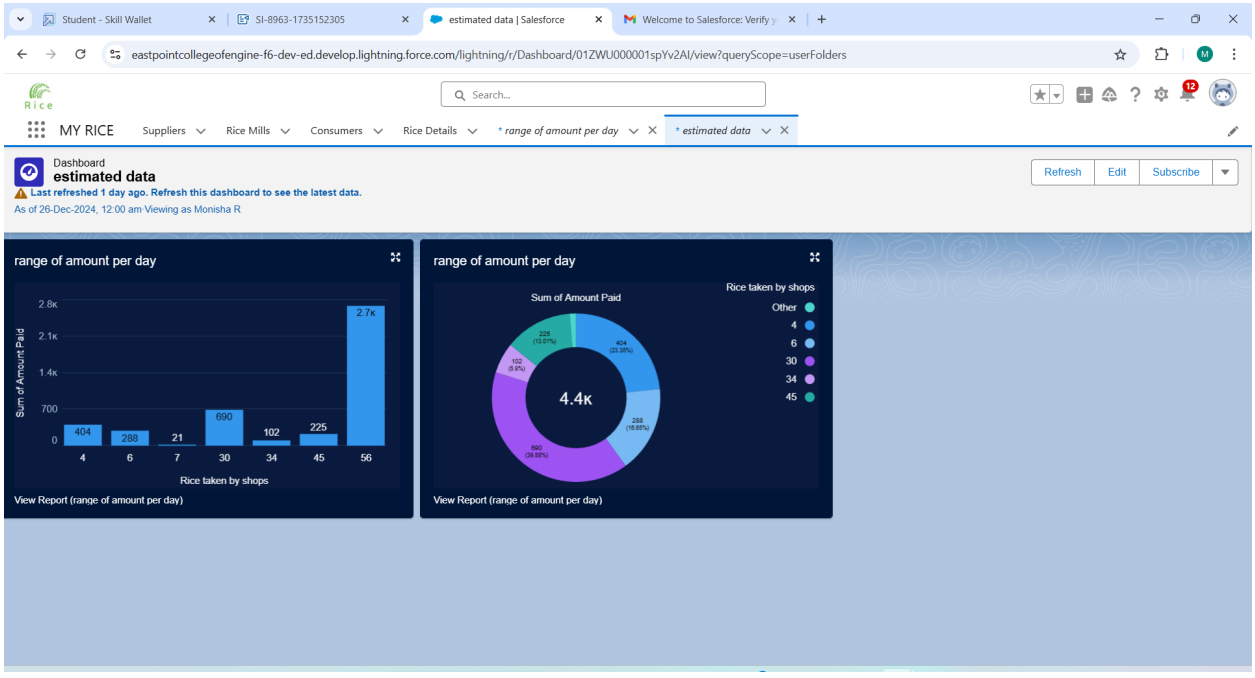
Key Features Implementation:

Reporting and Dashboards:

Developed reports showing the records of the consumer name, rice type, rice price/kg, mode of

payment, amount paid, rice taken by shops.
Create dashboards for visual representation of production and sales data.
Automate daily reports sent to owners.



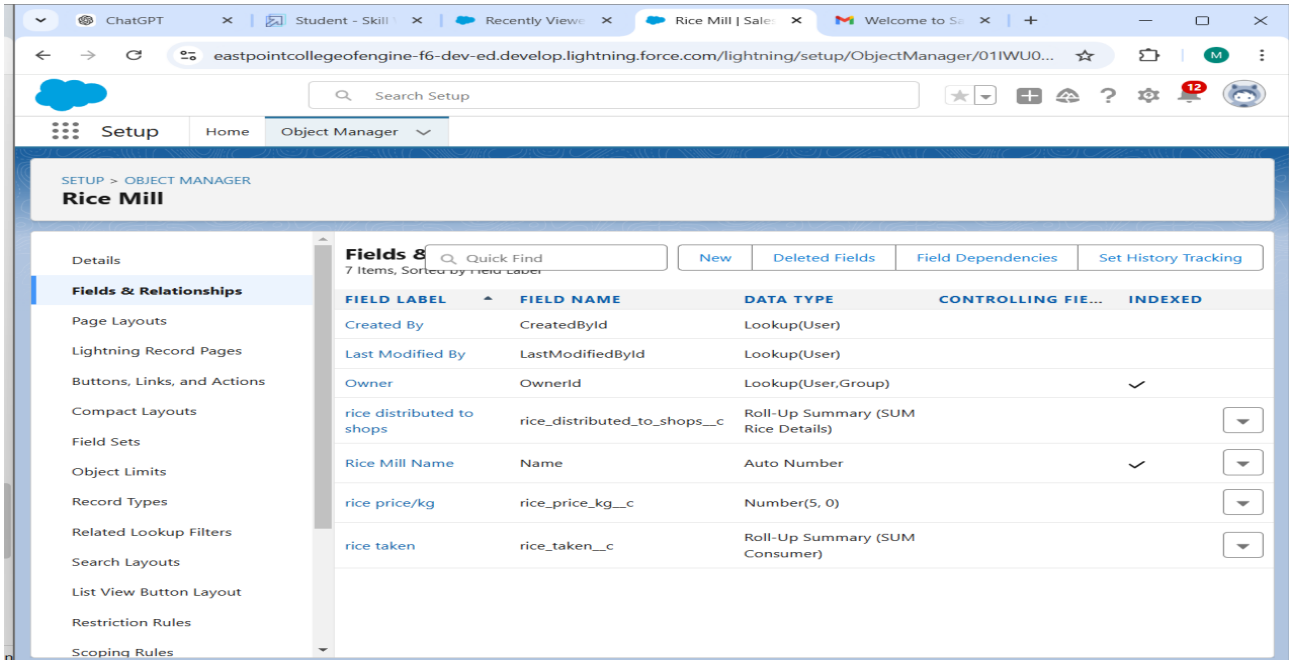


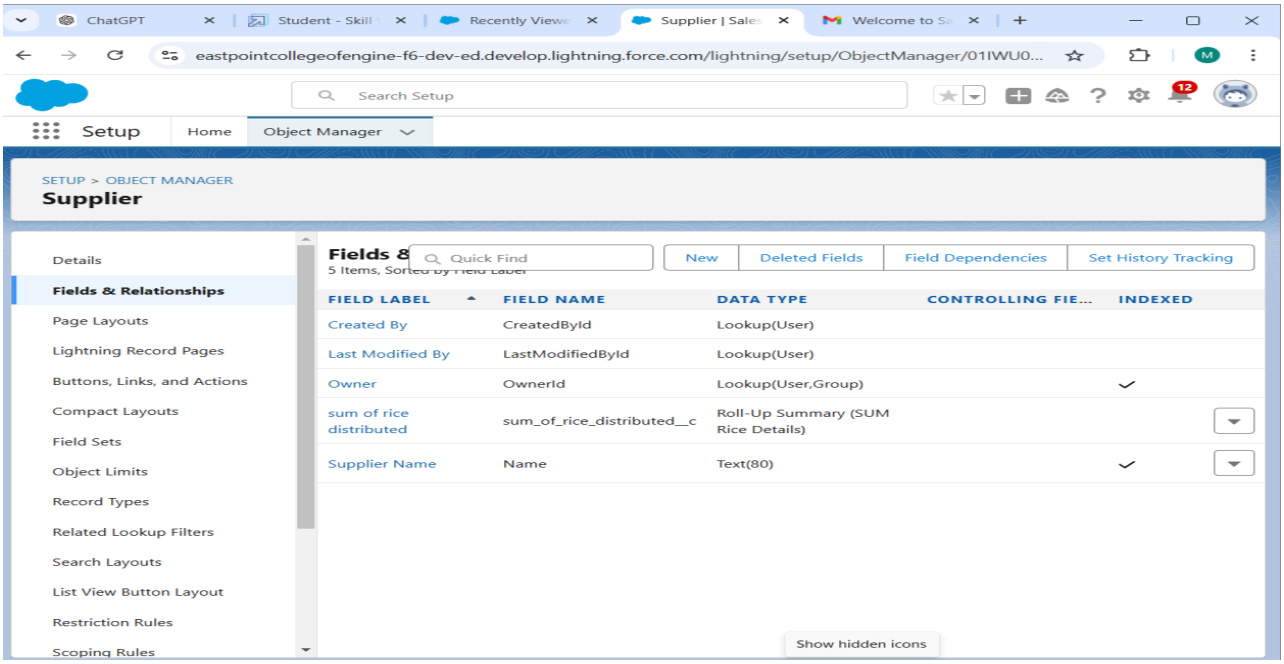
Roll-Up Summary Fields:

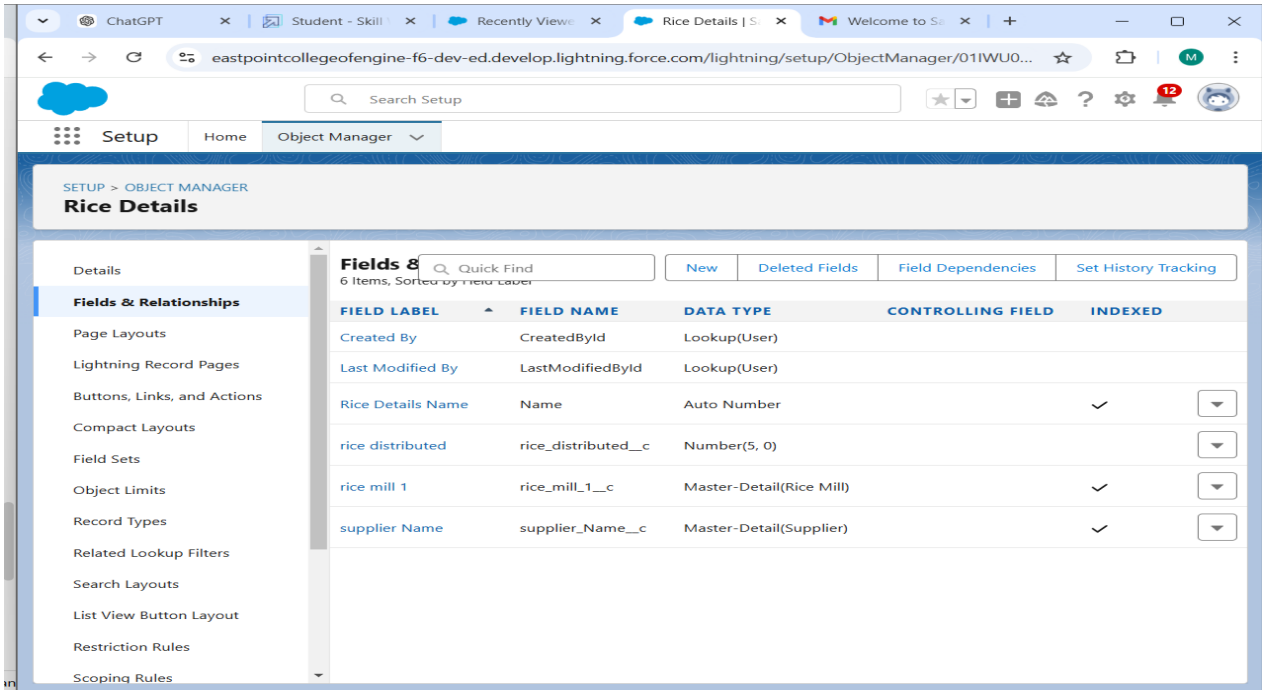
Aggregate rice supply data (SUM) to display total production from related rice details.
Use COUNT to track the number of rice transactions.

Cross-Object Formula Fields:

Develop formulas to calculate total cost (quantity * price/kg) from related objects.
Display calculated values directly on sales records.



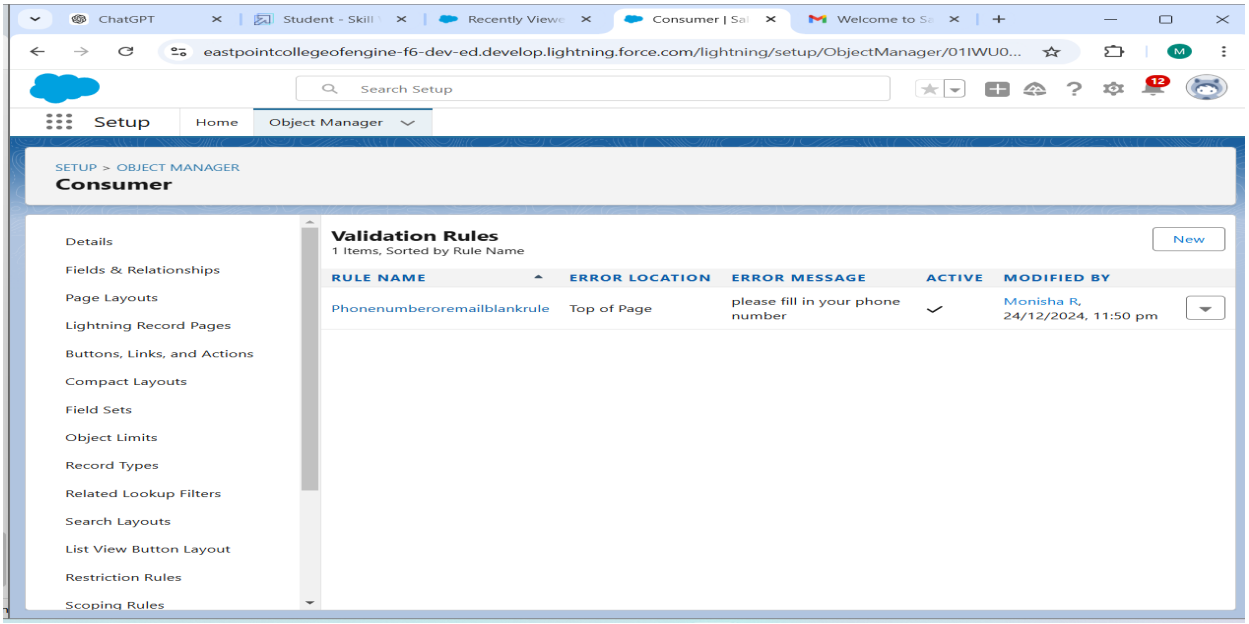




This screenshots shows the roll-up summary fields and master detail data type with the respective field name.

Validation Rules:

Implement ISBLANK validation to ensure key fields (quantity, price) are populated. Relay error messages for incomplete or incorrect data entry.



Access Control and Security:

Organization-Wide Defaults (OWD): Restrict baseline data access.
Role-Based Access:
Owners: Full access to production, sales, and worker records.
Employers: Access to worker records, limited visibility on sensitive data.

User Interface and Page Layouts:

Customize page layouts to streamline data entry and improve usability.
Organize record pages to highlight essential fields (sales, rice quantity, and price).

5. Testing and Validation

Unit Testing:

Unit testing in Salesforce focuses on testing the individual components of your code—such as Apex classes and triggers—to ensure that each part behaves as expected. Salesforce requires a minimum of 75% code coverage in production, and unit tests must be written for each Apex class and trigger.

Apex Classes:

Test Methods: Write test methods to simulate various scenarios (positive, negative, boundary cases) to ensure your logic performs as expected. Test methods should be independent and isolated from each other.

Apex Triggers:

Trigger Context: Ensure your test cases are designed to cover different trigger contexts (before insert, after insert, before update, etc.).

Governor Limits: Ensure that your triggers do not exceed Salesforce's governor limits, such as the number of DML operations and queries per transaction.

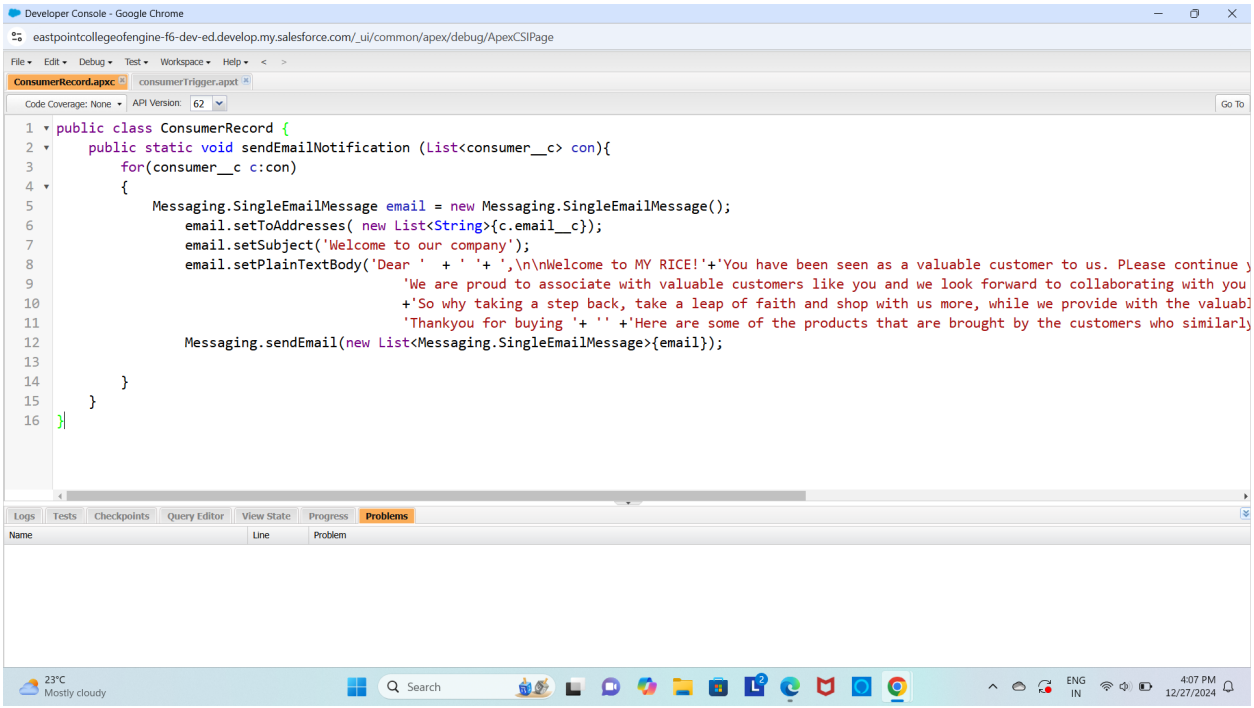
Test Coverage: Include triggers that handle insertions, updates, and deletions with different record types and scenarios.

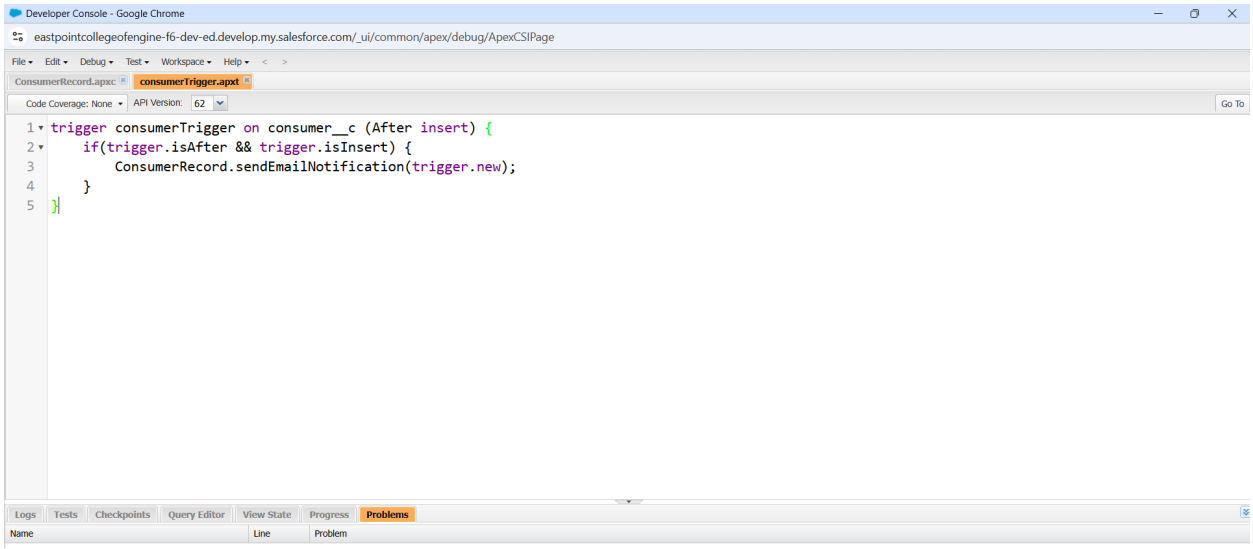
Validation Rules:

Rule Testing: Ensure validation rules are firing correctly for specific conditions.

Error Messages: Test that error messages are user-friendly and guide the user in resolving the issue.

Record Type-Specific Rules: Validate that validation rules are applied correctly based on record types or page layouts.





6. Key Scenarios Addressed by Salesforce in the Implementation Project

Sales and Financial Insights: Salesforce generates detailed reports and dashboards to monitor daily rice sales, revenue, and customer data, aiding in better decision-making and resource planning.

Data Aggregation: Roll-up summary fields are used to automatically calculate and display key metrics, such as the total rice supplied by each supplier, for easy tracking and analysis.

Cost Calculation: Cross-object formula fields calculate the total amount due by multiplying rice quantity with the price per kilogram, streamlining billing processes.

Data Validation: Validation rules, like `ISBLANK()`, ensure that critical fields are not left empty, maintaining data accuracy and consistency across records.

Access Control: Permission sets and role-based access ensure that the owner can view all records, while employers and workers have limited access based on their responsibilities.

User-Friendly Interface: The application is designed for simplicity, allowing easy data entry, report generation, and analysis, even for users with varying technical expertise.

Maintaining Data Quality: Salesforce ensures reliable data by automating calculations and enforcing validation rules to prevent errors, ensuring consistent and accurate information.

7. Conclusion

The CRM Application for the Wholesale Rice Mill has successfully achieved the following:

Streamlined Sales and Financial Management: It generates detailed daily reports on rice sales, revenue, and customer insights, enabling the owner to track performance, allocate resources efficiently, and make informed business decisions.

Automated Data Aggregation: The use of roll-up summary fields allows automatic aggregation of data, such as the total rice supplied by each supplier, simplifying tracking and inventory management.

Simplified Billing Process: Cross-object formula fields calculate the total payment due for rice purchases by multiplying quantity with price per kilogram, ensuring accurate and efficient billing.

Data Integrity and Consistency: Validation rules, including the `ISBLANK()` formula, ensure that critical fields are not left empty, maintaining data quality across the system.

Controlled Access and Security: Role-based access, defined through permission sets, ensures the owner has full visibility, while limiting access for employers and workers based on their roles, maintaining data security.

Improved User Experience: The system's user-friendly interface allows seamless data entry, report generation, and real-time analysis, making it easy for all users, regardless of technical proficiency.

Enhanced Data Accuracy: Automated calculations and validation rules reduce manual errors, ensuring high-quality, consistent data across the application.

Overall, the CRM application has improved operational efficiency, financial management, and data accuracy for the wholesale rice mill, enhancing decision-making and resource optimization.