A CRM APPLICATION TO MANAGE THE MALL
SALESFORCE PROJECT REPORT
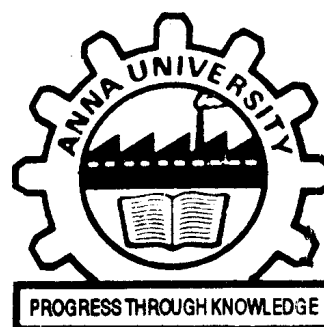
PROJECT CREATED BY

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COMPUTER SCIENCE AND ENGINEERING

Contents

Project Title: CRM Application to Manage the Mall

1. Project Overview

This project involves the creation of a Customer Relationship Management (CRM) application specifically designed to manage a shopping mall using Salesforce. The CRM system aims to streamline mall operations by organizing tenant (shop owner) information, tracking customer interactions, managing lease agreements, and facilitating promotional events. By centralizing tenant and visitor data, this application will help the mall management team enhance efficiency and provide a better shopping experience for visitors.

2. Project Objectives

The primary goal of this project is to develop a robust CRM application designed to streamline operations and enhance the overall management experience within a mall environment. This includes optimizing tenant relationships, lease agreements, event tracking, and visitor engagement. The objectives of the CRM application are as follows:

1. **Improve Tenant Management and Communication with ShopOwners:**
Facilitate seamless communication between mall management and shop owners through a centralized platform. The application will enable real-time updates, announcements, and issue resolution to foster better relationships with tenants. Features such as tenant portals, chat systems, and notification tools will enhance transparency and collaboration.

2. **Simplify Lease Agreements and Renewal Processes:**
Automate and streamline the handling of lease agreements, ensuring that contracts, renewals, and payment schedules are efficiently managed. The system will provide reminders for renewal deadlines, generate digital agreements, and maintain a secure repository for all lease-related documents, minimizing manual effort and errors.

3. **Track and Manage Mall Events and Promotions:**
Support event planning and execution by enabling mall administrators to schedule, track, and promote events and campaigns effectively. The system will also allow shop owners to participate in mall-wide promotions, providing an integrated view of event timelines, budgets, and participation.

4. **Analyze Visitor Patterns to Inform Marketing Strategies:**
Utilize data analytics to track and understand visitor behavior, such as footfall patterns, peak hours, and demographic insights. This information will empower the mall management team to design targeted marketing campaigns, optimize tenant placements, and enhance customer experiences based on visitor preferences.

5 **Support Real-Time Decision-Making with Accessible Reports on Mall Activities:**
Offer comprehensive reporting tools to provide insights into key metrics like sales performance, event participation, and visitor trends. These real-time, visually intuitive dashboards will enable mall managers to make informed decisions quickly, ensuring efficient mall operations and strategic planning.

3. Salesforce Key Features and Concepts Utilized

In implementing this CRM application for mall management, several core Salesforce features and concepts were utilized to ensure smooth operation and efficient management.

Salesforce CRM for the Mall Management

Salesforce CRM is a powerful tool designed to help businesses manage relationships and operations more effectively. In the context of mall management, this project leverages Salesforce CRM to simplify and organize tenant interactions, lease agreements, events, and promotions. By providing a centralized platform, Salesforce CRM enables mall administrators to maintain detailed tenant histories, track rental and leasing data, and streamline communication with shop owners.

One of the key benefits of Salesforce CRM is its ability to store all tenant-related information in one place. This includes contact details, payment schedules, and lease agreements, ensuring quick access and efficient management.

It also offers features to log interactions and feedback, helping the mall management team build stronger relationships with tenants by providing timely resolutions to their needs.

In addition to tenant management, Salesforce CRM supports the organization of mall-wide events and promotional campaigns. The platform allows seamless scheduling, tracking, and coordination of events, helping shop owners and mall management collaborate more effectively.

By integrating analytics capabilities, Salesforce CRM provides insights into visitor patterns, such as foot traffic and peak hours. These insights empower the mall management team to create data driven marketing strategies and improve the overall shopping experience.

The project utilizes Salesforce CRM to transform how malls operate, enhancing efficiency, boosting tenant satisfaction, and enabling better decision-making. This innovative approach ensures that all aspects of mall management are streamlined and optimized.
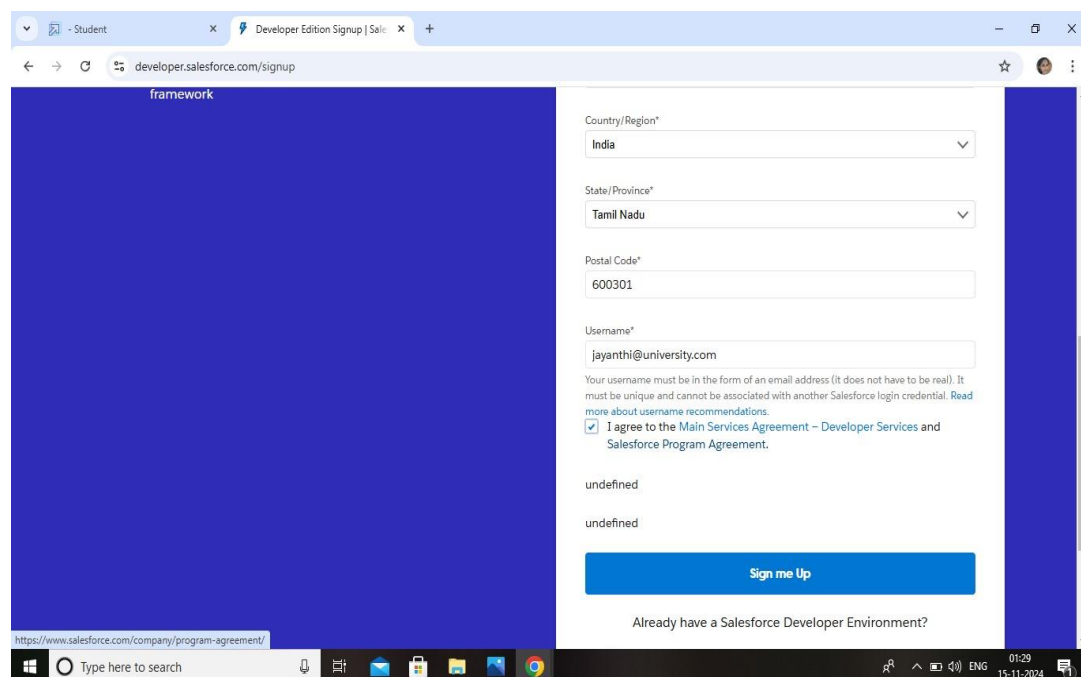
FIGURE 1:
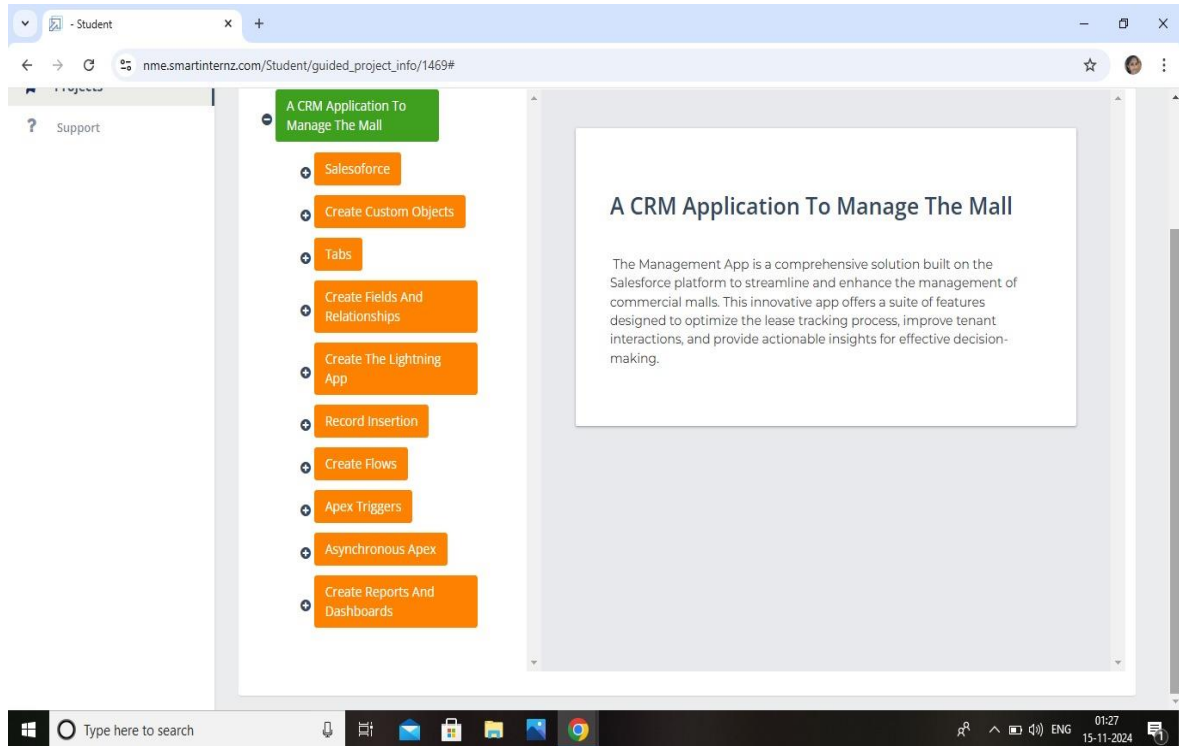
Salesforce Setup

Salesforce is a cloud-based CRM platform that enables us to build custom applications quickly. The first step is creating a Salesforce Developer account, which provides a free environment for building and testing applications without requiring any prior setup.

- **Objective**: Set up the Salesforce environment to serve as the CRM platform.

- **Steps**:

  - Go to [Salesforce Developer](link) and sign up for a free account.

  - After logging in, explore the interface, focusing on sections like **App Launcher** (which houses all apps), **Object Manager** (for managing objects and their fields), and **Setup** (for configuration).

  - This foundation will help understand where customizations, data, and apps are built and organized in Salesforce.

  FIGURE 2:

Create Custom Objects

Custom objects in Salesforce are used to store specific data for your application. Since the CRM app is focused on mall management, you need custom objects like **Tenant**, **Lease Agreement**, and **Mall Events**.

- **Objective**: Define the data structure for storing mall-specific information.

- **Steps**:

    o Go to **Object Manager** and create a new custom object by clicking **Create Object**.

    o For the Tenant object, define fields such as "Tenant Name," "Contact Information," and "Store Location." For the Lease Agreement object, add fields like "Lease Start Date," "Lease End Date," and "Monthly Rent."

    o Ensure each object reflects the data it is supposed to manage. Use appropriate data types, such as text for names, dates for lease terms, currency for rent amount.

FIGURE 3:
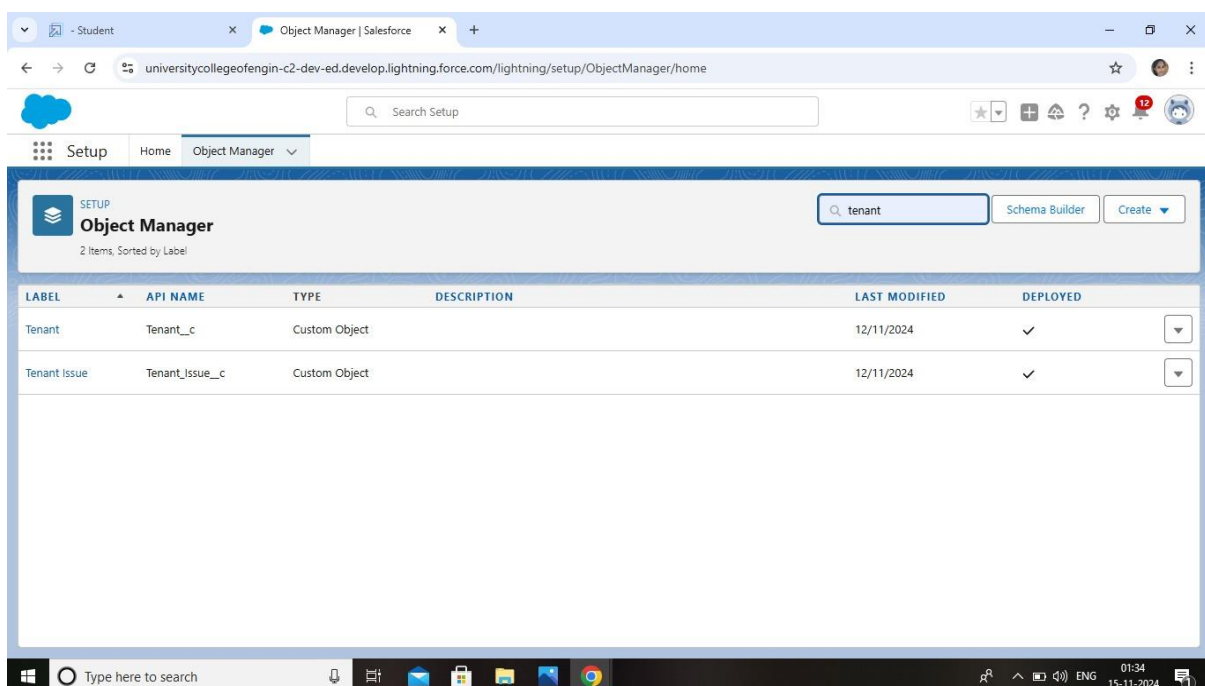
Create Tabs

Tabs in Salesforce allow quick access to objects directly from the app's navigation menu. By creating tabs for each custom object, users can easily view and manage records like tenants and leases.

- **Objective**: Make custom objects accessible from the navigation menu.

- **Steps**:
  - In the **App Manager**, find your CRM application and open it.
  - Add a custom tab for each custom object (Tenant, Lease Agreement, Mall Events) by selecting the object type and assigning it a unique name.
  - Customize the layout and ordering of tabs to create a user-friendly experience. Tabs allow users to quickly navigate to key data areas.

FIGURE 4:
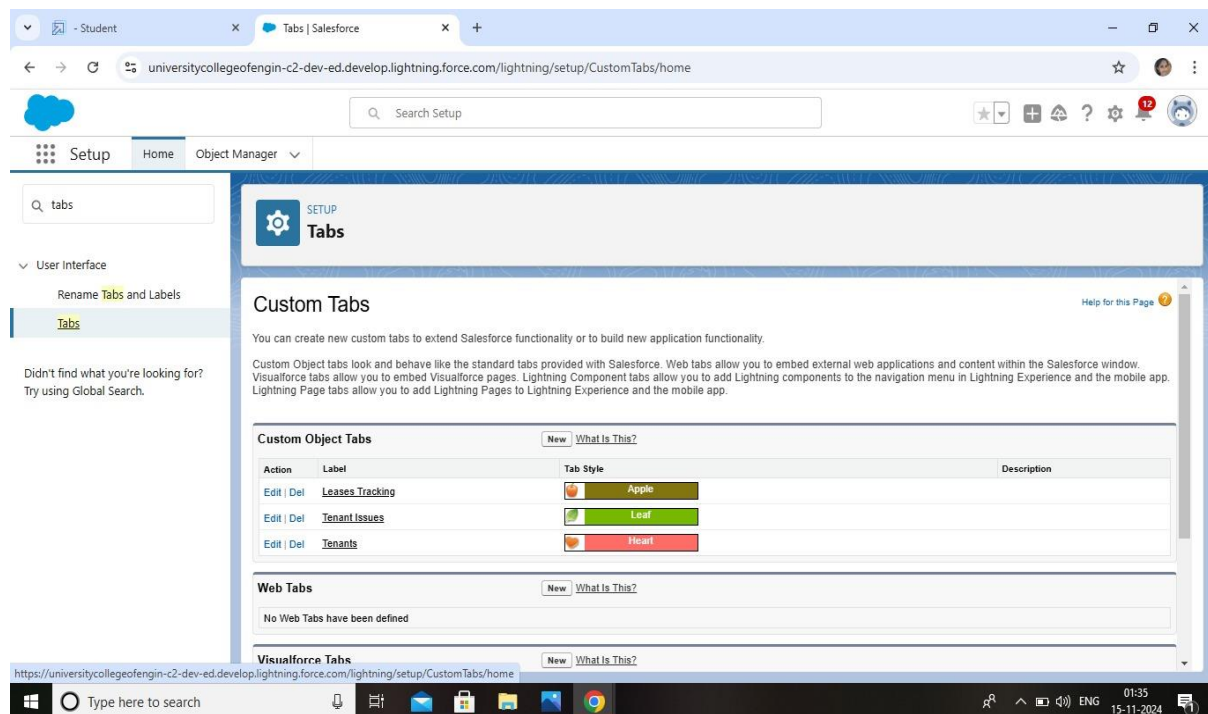
Create Fields and Relationships

Fields hold specific data points for each object, while **relationships** connect different objects to show how data is linked. For example, a relationship might connect a Tenant record to its associated Lease record.

- **Objective**: Define fields and set relationships to organize and link data effectively.

- **Steps**:
  - In **Object Manager**, select each custom object and start adding fields. For example, for the Tenant object, add fields like "Store Name," "Phone Number," and "Email."
  - Use **Lookup Relationships** or **Master-Detail Relationships** to connect related objects. For instance, a **Master-Detail** relationship between Tenant and Lease allows each lease to be directly associated with a tenant.
  - Relationships help maintain data consistency and allow for more advanced reporting.

FIGURE 5:
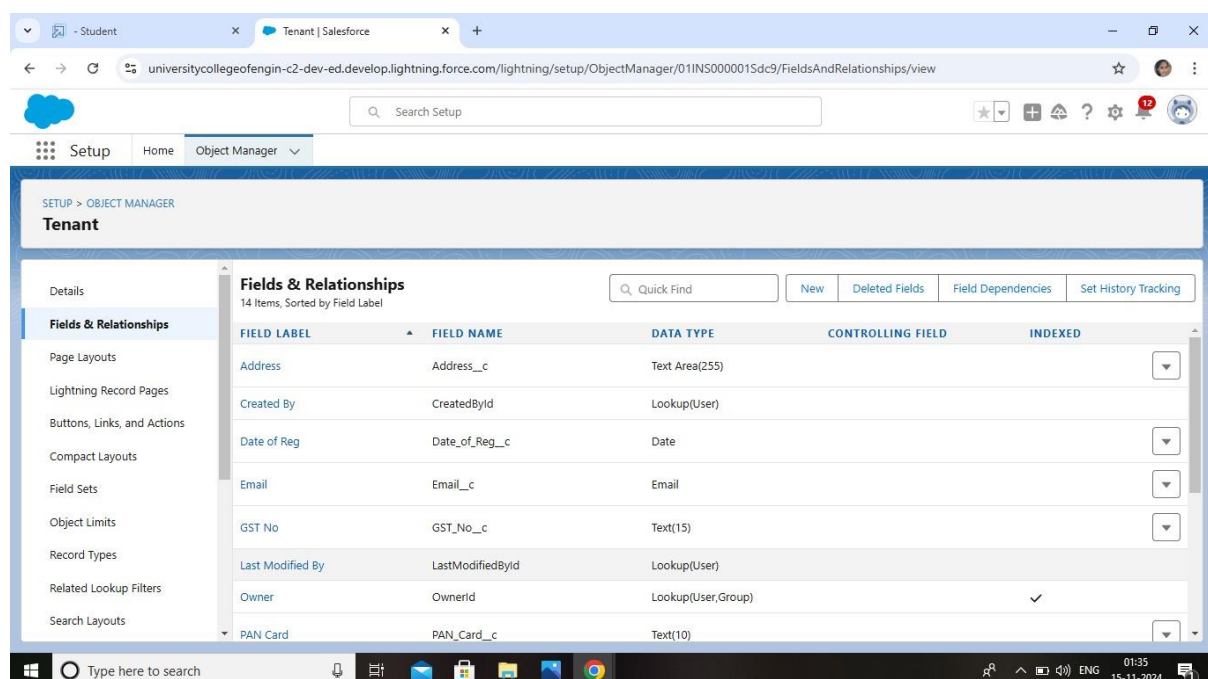
Create the Lightning App

A **Lightning App** is a user-friendly interface built in Salesforce Lightning. This app organizes key components like tabs, forms, and charts in a streamlined way.

- **Objective**: Create a custom app interface for easier navigation and use.

- **Steps**:
    - In **App Builder**, start building a Lightning app by selecting custom components.
    - Add sections for each tab (Tenant, Lease Agreement, Mall Events) and configure the layout, including detail views and related lists.
    - This app will serve as the main interface for mall managers, making tenant and lease management smoother and more organized.

FIGURE 6:
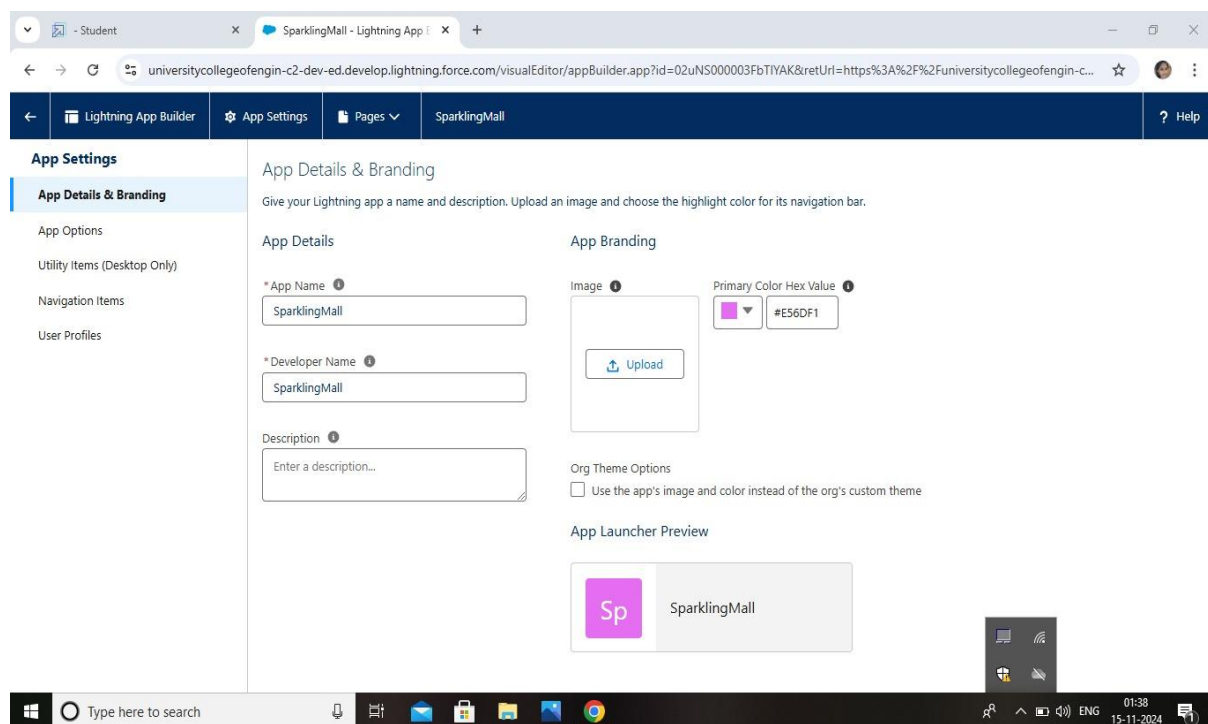
Record Insertion

Once custom objects and fields are set up, the next step is adding data. Inserting records populates your database with real tenant and lease information.

- **Objective**: Add sample records to make the CRM functional and test its features.

- **Steps**:
    - Manually insert records for tenants (e.g., tenant names, store numbers) and lease details (e.g., lease duration, rent amounts).
    - Check each record to ensure fields are populated accurately and relationships (like Tenant-Lease) are correctly linked.
    - This step allows you to test functionality with real data, verifying that fields, relationships, and interfaces work as expected.

FIGURE 7:
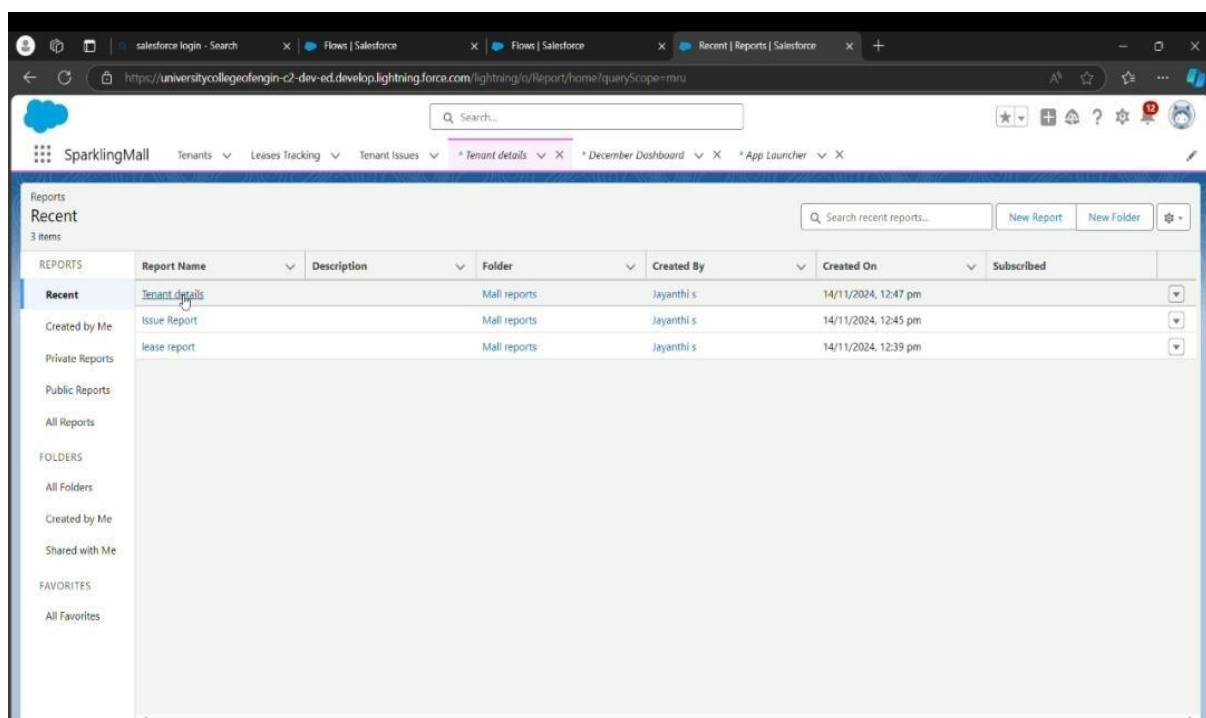
Create Flows

Flows in Salesforce automate actions, like sending notifications or updating records when certain conditions are met. For mall management, flows can send reminders before lease expiration.

- **Objective**: Automate tasks to reduce manual work and ensure timely actions.

- **Steps**:
  - ○ Open **Flow Builder** and create a new flow to automate actions, such as sending email notifications to tenants nearing lease expiration.
  - ○ Define triggers, like when a lease's end date is approaching, and set up actions, like sending an email reminder.
  - ○ Test flows to confirm they run correctly. Automation saves time and reduces the risk of missing key tasks.

FIGURE 8:
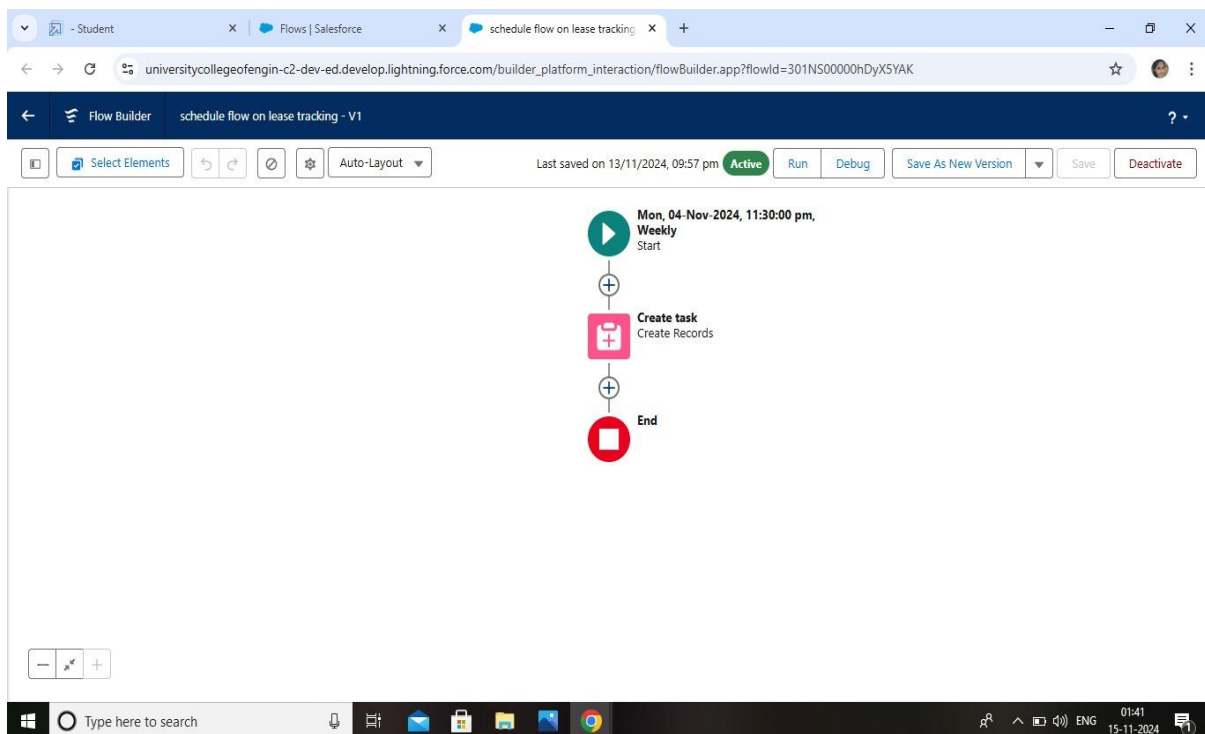
Apex Triggers

Apex Triggers are custom scripts that perform actions when specific events occur. For example, an Apex Trigger can automatically update a tenant's record if the lease status changes.

- **Objective**: Customize actions beyond standard flows using code.

- **Steps**:

  - Write an **Apex Trigger** in Salesforce Developer Console to update related records automatically. For example, if a lease expires, the tenant status could be set to "Inactive."

  - Test the trigger by modifying records and observing if actions are triggered correctly.

  - Apex Triggers offer fine-grained control over processes, handling complex scenarios.

FIGURE 9:
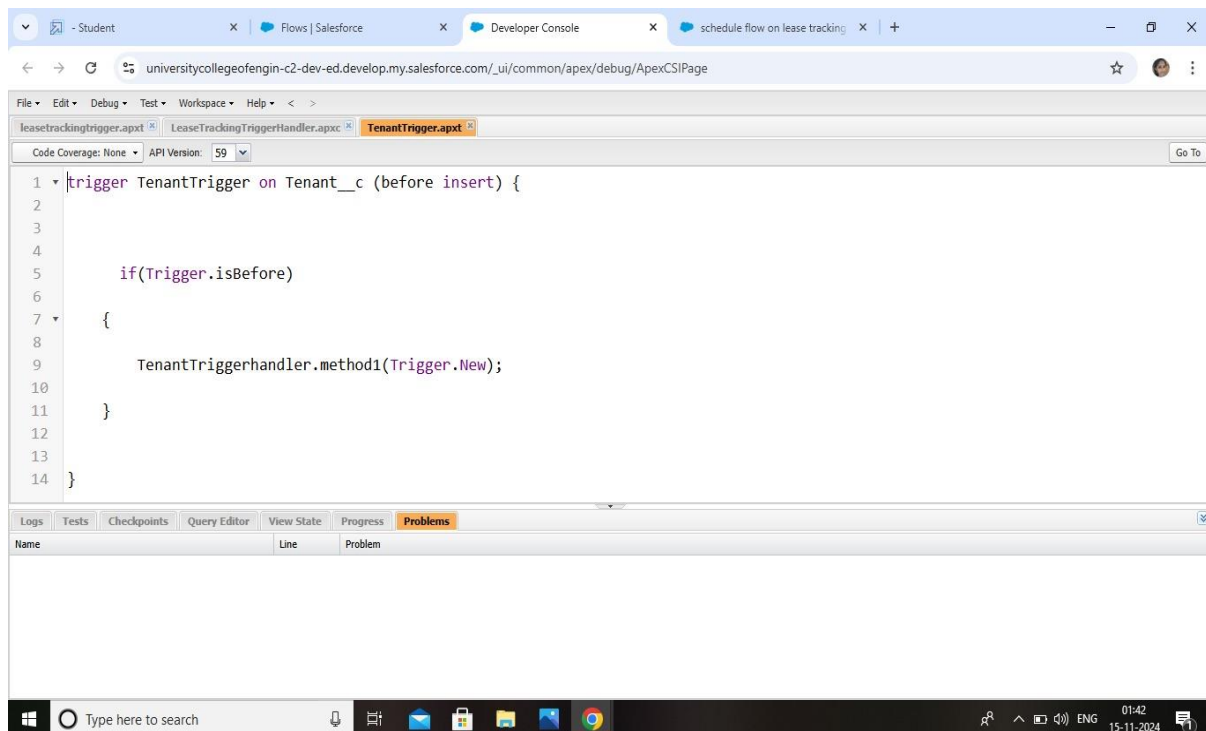
Asynchronous Apex

Asynchronous Apex runs tasks in the background, helping manage complex tasks without slowing down the user interface.

- **Objective**: Perform background processing for tasks that don't need to run immediately.
- **Steps**:
  - Use asynchronous Apex methods, such as **Future** or **Batch Apex**, for tasks like calculating monthly rent collections or generating reports at scheduled times.
  - Schedule these processes to run periodically, reducing the load on the system during peak hours.
  - This approach improves application performance and user experience by minimizing delays in real-time interactions.

Create Reports and Dashboards

Reports and Dashboards visually represent data, making it easier to track metrics like tenant occupancy, lease renewals, and revenue. This feature supports real-time decision-making and performance tracking.

- **Objective**: Provide visual insights into mall operations for informed decision-making.
- **Steps**:
  - Use **Report Builder** to create reports on key metrics, such as lease durations, total rents, and tenant contacts.
  - Design **Dashboards** that summarize data in charts, graphs, and tables, displaying critical information in an easy-to-understand format.
  - Set filters to customize reports and ensure dashboards update automatically as new data is entered.

FIGURE 10:
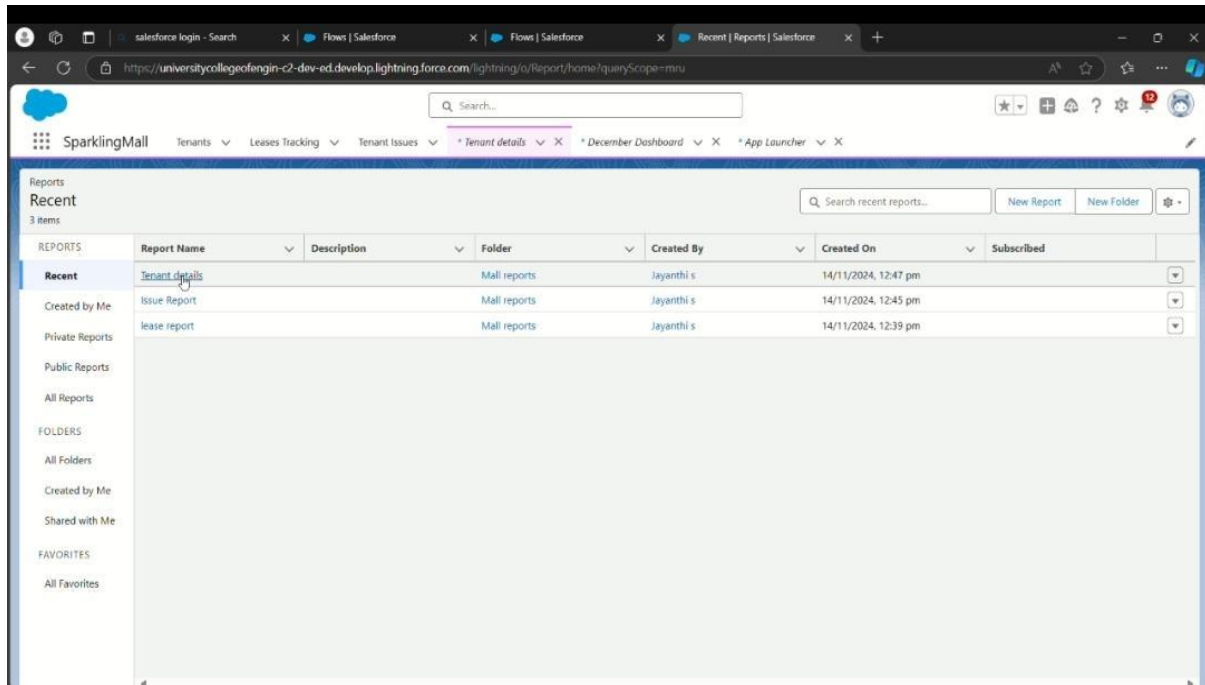
Dashboard Result

The page displayed appears to be a dashboard from Salesforce, specifically for a project or application called "SparklingMall." This dashboard is likely used for managing tenant details, lease tracking, and issues within a mall or commercial property. Here's a breakdown of the main sections:

1. **Tenant Details (Top Section)**:
   ○ This section shows tenant registration information and their possession status.
   ○ There's a bar chart indicating the count of records (possibly tenants) with a specific status.
   ○ For instance, on the date marked as 20/11/2024, one tenant is in a "Closed" possession status.

- o There's also an option labeled "View Report" which, when clicked, may provide more detailed information about the tenants.

2. **Issue Report (Bottom Left)**:
   - o This section provides a list of issues reported by tenants.
   - o For example, a tenant named "Sparkle" has reported an issue through mail.
   - o The priority of the issue is marked as "Medium," and the status is currently "Open."
   - o This area likely helps property managers track and prioritize tenant issues.

3. **Lease Report (Bottom Right)**:
   - o This pie chart shows financial information related to lease payments.
   - o The "Sum of Amount to be paid" is shown as 300k, possibly representing the total lease amount due.
   - o It seems intended to help track payments and assess the total amount tenants owe.
   - o There's also a date of 20/11/2024, indicating when this amount is due or relevant.

4. **Detailed Steps to Solution Design**

   1. Requirements Gathering and Analysis

      - Feedback Collection: Gathered insights from mall managers and tenants to understand their needs, like

improved tenant communication, event tracking, and lease management.

- CRM Feature Identification: Identified the essential CRM features needed to support tenant communication, manage events, and handle lease agreements efficiently.

2.Salesforce Setup and Configuration

- Salesforce Setup: Configured Salesforce to manage records for tenants, leases, and events in a central system.
- User Roles and Permissions: Set up access controls to ensure data privacy, allowing only authorized staff to view sensitive information.

3. Data Modeling and Field Customization

- Custom Fields: Added fields specific to mall operations, such as tenant information, lease terms, shop locations, and promotional data, to tailor the CRM to mall needs.

4. Workflow Automation

- Automated Notifications: Configured automatic reminders for lease renewals, tenant updates, and event notifications, reducing the need for manual follow-ups.

5. Integration with Marketing and Social Tools

- Marketing Integration: Linked Salesforce with social media and marketing tools to simplify event promotions and reach a larger audience.

6 Dashboard and Report Design

- Visual Dashboards: Designed dashboards within Salesforce to display visitor data, tenant satisfaction, and event performance for easy monitoring and analysis.

FIGURE 11:
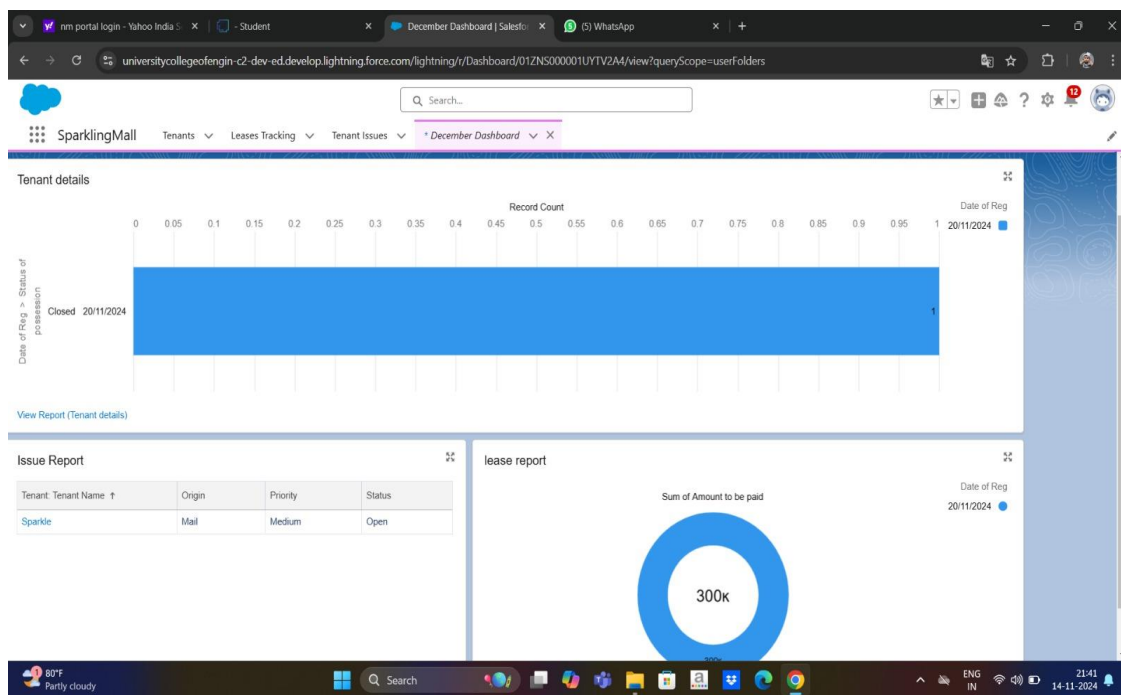
5. Testing and Validation

- **Unit Testing:** Verified the functionality of each CRM component in isolation to ensure it met design specifications and behaved as expected. This included testing individual features such as tenant onboarding, lease creation, and event scheduling to identify and resolve any bugs at the earliest stage of development.

- **System Testing:** Conducted comprehensive testing to ensure seamless integration and interaction between core CRM modules, such as tenant management, lease processing, and event tracking. The testing process confirmed that all integrated features worked cohesively, maintaining data consistency and workflow efficiency across the system.

- **User Acceptance Testing (UAT):** Collaborated with mall managers to evaluate the CRM in real-world scenarios. This testing phase ensured that the system aligned with operational needs, such as tracking tenant performance, managing lease terms, and coordinating mall events. Feedback from mall managers was incorporated to refine and optimize the CRM for practical usage.

6.Key features managed by the CRM

- **Lease Management:** Automates the end-to-end process of managing lease agreements, from initiation to renewal. The CRM tracks key details such as lease terms, payment schedules, and renewal deadlines. It sends automated alerts and notifications for upcoming renewals or overdue payments, helping mall administrators maintain consistency and minimize missed opportunities.

- **Financial Analytics and Reporting:** Offers advanced tools to analyze revenue streams generated through tenants, events, and other mall activities. The CRM can generate customizable reports that provide insights into income trends, operational costs, and overall financial health. These insights help mall management make informed decisions, plan budgets effectively, and identify growth opportunities.

- **Maintenance Requests and Tracking:** Provides a centralized platform for submitting and managing maintenance requests. Tenants and staff can log issues, which are then assigned to appropriate personnel for resolution. The CRM tracks the status of these requests to ensure they are resolved promptly, reducing downtime and improving tenant satisfaction.

- **Mall Directory Management:** Maintains a comprehensive and up-to-date directory of all shops, services, and facilities available in the mall. This information can be integrated with digital kiosks, mobile apps, and websites, enabling visitors to easily navigate the mall and find the services they need. Regular updates ensure accuracy, enhancing the customer experience.

- **Security and Access Control:** Enhances the safety of the mall by managing access rights for employees, tenants, and visitors. It tracks entry and exit points, monitors peak visitor times, and helps in crowd management during large events or promotions. This feature also ensures that only authorized personnel have access to restricted areas, strengthening overall security.

7. Conclusion

The completion of the **CRM Application to Manage the Mall** marks a significant achievement in delivering a comprehensive, user-friendly solution that enhances mall management. Built on the Salesforce platform, this application integrates critical functionalities that streamline tenant relations, facilitate lease management, and support event coordination. By automating and centralizing data, the CRM application not only reduces administrative burden but also enables mall managers to make data-driven decisions for improved efficiency and profitability.

Throughout the project, several Salesforce capabilities were utilized to create a robust and dynamic CRM framework. Custom objects and relationships were designed to represent the core entities within the mall, such as tenants, leases, and events. Tabs and fields were meticulously configured to capture relevant data points, ensuring easy access to critical information. Leveraging the Salesforce Lightning App, an intuitive user interface was developed to enhance usability and provide seamless navigation for end-users.

Key automation features were implemented through flows, record insertion, and Apex triggers, enabling smooth processes for tenant management, lease updates, and event tracking. Asynchronous Apex further enhanced the application's responsiveness, allowing tasks to run in the background without affecting real-time performance. Finally, custom reports and dashboards were created to provide actionable insights into visitor traffic, tenant performance, and event outcomes. These visualizations empower mall managers to monitor trends, track revenue, and respond proactively to emerging needs.

In conclusion, this CRM application is a powerful tool that aligns with the operational goals of modern mall management. By enhancing tenant relationships, optimizing lease processes, and supporting effective marketing and event planning, the CRM fosters a more engaging and efficient environment for both tenants and visitors. This project not only demonstrates the potential of Salesforce as a versatile CRM platform but also highlights the importance of technology in elevating the standards of customer service and operational excellence in commercial settings.