A CRM APPLICATION TO MANAGE THE MALL

## 1. Project Overview

The \*Salesforce CRM Application for Mall Management\* is designed to tackle challenges in tenant relationship management, property allocation, and operational workflows within a mall. Managing multiple tenants, monitoring property performance, and ensuring consistent communication can often become overwhelming without a centralized system. This project aims to address these issues by leveraging Salesforce’s robust CRM capabilities.

The system will consolidate all tenant, property, and payment data into a unified platform, automating routine tasks like notifications for payment deadlines and lease renewals. By streamlining these processes, the CRM application seeks to enhance operational efficiency, improve tenant satisfaction, and provide mall management with actionable insights.

This solution focuses on automating repetitive tasks, maintaining data accuracy through validation rules, and enabling managers to make informed decisions with real-time data visualization tools such as reports and dashboards.

**Project Goals:**

**1.Streamline Operations:**

Create a centralized system that automates tenant and property management tasks.

**2.Enhance Communication**:

Automate and personalize notifications for payments, lease renewals, and mall announcements.

**3. Improve Insights:**

Use comprehensive dashboards and reports to track key metrics like revenue, occupancy, and overdue payments.

**4. Boost Tenant Satisfaction:**

Maintain transparency and ensure timely updates to tenants, improving overall relationships.

# 2.Objectives:

# The Salesforce CRM for Mall Management aims to achieve four primary business goals that align with the operational requirements of modern malls:

# Efficient Tenant and Lease Management: The primary objective is to centralize all tenant data, including lease agreements and contact details, into a single system. This eliminates the need for manual record-keeping and minimizes errors, enabling smoother operations.

# Improved Communication: Effective communication is critical in maintaining healthy tenant relationships. The project incorporates automated notifications to keep tenants informed about payment deadlines, lease renewals, and other important updates.

# Data Accuracy and Reliability: With the use of validation rules and triggers, the system ensures that data entries are accurate and consistent. This minimizes the risk of errors, such as assigning a single property to multiple tenants.

# Enhanced Decision-Making: By using Salesforce’s powerful reporting tools, the CRM application empowers mall managers with insights into tenant performance, property utilization, and revenue trends.

# 

**Specific Outcomes**

* **Customizable Dashboards:**

A variety of dashboards will provide an at-a-glance view of critical metrics like total revenue, occupancy rates, and overdue payments.

* **Custom Objects for Data Organization:**

Dedicated objects for tenants, properties, and payments will ensure structured data storage and seamless tracking.

* **Automated Notifications:**

Timely reminders for lease renewals and overdue payments will reduce communication gaps and improve tenant compliance.

* **Validation Rules and Triggers:**

Apex triggers and validation rules will maintain data integrity and prevent duplicate or conflicting records.

# 3.Salesforce Key Features and Concepts Utilized

**Custom Objects:**

The system is built using custom objects to organize tenant, property, and payment data effectively.

* **Tenant Object:**

Stores tenant information, including name, contact details, business type, and assigned property.

* **Property Object:**

Maintains property-specific data, such as location, rental price, and occupancy status.

* **Payment Object:**

Tracks payment details, including amount, due date, payment status, and associated tenant.

**Apex Triggers**

To ensure data accuracy, custom triggers are implemented. For example, a trigger prevents assigning a single property to multiple tenants simultaneously, avoiding errors in tenant-property mapping.

**Automated Notifications**

Automated email templates and workflows enhance communication efficiency. Tenants receive reminders for upcoming payments, overdue notices, and lease renewals. These communications are personalized using Salesforce merge fields, ensuring professionalism and clarity.

**Reports and Dashboards**

Custom reports and dashboards provide detailed insights into mall performance. Reports like overdue payment summaries and occupancy analyses allow proactive management, while dashboards visualize critical KPIs for better decision-making.

# 4.Detailed Steps to Solution Design

# 4.1 Data Model Design

# The data model ensures seamless relationships between tenants, properties, and payments.

# Tenant and Property Relationships

# Tenants are linked to properties through a \*lookup relationship\*, ensuring each tenant is correctly assigned to a single property. Payments are similarly linked to tenants for easy tracking.

# Object Fields

# Tenant Object Fields:

# Includes tenant name, contact information, business type, lease duration, and assigned property.

# 

# Property Object Fields:

# Tracks property details, such as property ID, location, rental price, and status (vacant/occupied).

# Payment Object Fields:

# Monitors payment amounts, due dates, payment statuses, and associated tenant records.

# 4.2 Business Logic Implementation

# Apex Trigger:

# Prevent Duplicate Tenant Assignments

# To maintain accurate data, a trigger is implemented to ensure a tenant

# cannot occupy multiple properties.

# Code Implementation:

# TenantTrigger(Apex Trigger):

# trigger TenantTrigger on Tenant\_\_c (before insert) {

# if (Trigger.isBefore) {

# TenantTriggerHandler.method1(Trigger.new);

# }

# }

# LeaseTrackingTrigger(Apex Trigger):

# trigger LeaseTrackingTrigger on Lease\_Tracking\_\_c (after insert, after update) {

# if (Trigger.isAfter && Trigger.isUpdate) {

# LeaseTrackingTriggerHandler.method1(Trigger.old, Trigger.new);

# }

# }

# 4.3 User Interface Design

# Custom \*page layouts\* and \*Lightning components\* are created for enhanced usability. Page layouts simplify navigation for property managers by displaying tenant, payment, and property details in an organized format. Lightning components are added to enable quick data entry and real-time updates.

# 4.4 Communication Templates

# Automated email templates ensure professional and timely communication

# with tenants.

# Example Email Template: Payment Reminder

# text

# Subject: Upcoming Payment Due

# Dear {Tenant\_\_c.Name},

# This is a reminder that your payment of {Payment\_\_c.Amount} for Property {Property\_\_c.Location} is due on {Payment\_\_c.Due\_Date}.

# Please make your payment on time to avoid penalties.

# Best regards,

# Mall Management Team

# 5.Testing and Validation

**5.1 Unit Testing**

Unit testing is performed to validate trigger logic. For example, the \*PreventDuplicateTenantAssignment\* trigger is tested to ensure that no two tenants can occupy the same property.

**TenantTriggerHandler(Apex Class):**

public class TenantTriggerHandler {

public static void method1(List<Tenant\_\_c> tenants) {

for (Tenant\_\_c tenant : tenants) {

if (tenant.PAN\_Card\_\_c != null && tenant.PAN\_Card\_\_c.length() > 10) {

tenant.addError('This PAN Card number is invalid. Please enter a valid PAN Card number.');

}

}

}

}

**5.2 Integration Testing**

Integration tests validate data flow between objects and ensure that email templates are dynamically populated with accurate details.

## 6.Scenarios Addressed

* **Duplicate Property Assignment Prevention:**

The trigger ensures that a single property cannot be assigned to multiple tenants.

* **Payment Tracking:**

Tracks overdue payments and automates reminders to tenants.

* **Tenant Communication Automation**:

Streamlines notifications for lease renewals and payments.

# 7.Conclusion

**Summary of Achievements**

The Salesforce CRM application has centralized tenant management, automated notifications, and improved operational efficiency. It addressed challenges such as duplicate assignments, inconsistent communication, and lack of insights through automation and structured data organization.

**Future Enhancements**

Future improvements could include integration with external accounting systems, advanced analytics dashboards, and a self-service tenant portal for payments and lease updates.

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