LEASE MANAGEMENT

Sri Krishna Adithya College of Arts and Science

COLLEGE CODE:

TEAM ID: NM2025TMID22136

TEAM MEMBERS:

Team Leader Name: ASHWIN S.

Email: 23bsit108ashwins@skacas.ac.in

Team Member 1: DHANUSH M

Email: 23bsit114dhanushm@skacas.ac.in

Team Member 2: ARUN KUMAR S K

Email: 23bsit109arunkumarsk@skacas.ac.in

Team Member 3: ARAFATH ALI A

Email: 23bsit106arafathalia@skacas.ac.in

1. INTRODUCTION

1.1 Project Overview

The Lease Management System is a Salesforce-based application designed to streamline the processes associated with leasing real estate properties. It handles tenant management, lease contracts, payments, and communication with automation features such as flows, approval processes, and email alerts.

1.2 Purpose

The main objective of the project is to enable organizations to efficiently manage properties, tenants, and lease-related activities. It reduces manual intervention, improves accuracy, and ensures better compliance and communication.

DEVELOPMENT PHASE

Creating Developer Account:

By using this URL - **https://www.salesforce.com/form/developer-signup/?d=pb**

- Created objects: Property, Tenant, Lease, Payment

orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IgK000000zTbN/Details/view
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Tenant
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Details
Edit
Delete
Description
API Name
Tenant__c
Custom
Singular Label
Tenant
Plural Label
Tenants
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IgK000000zTuj/Details/view
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
lease
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Details
Edit
Delete
Description
API Name
lease__c
Custom
Singular Label
lease
Plural Label
lease
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

- Configured fields and relationships

Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Payment for tenanat
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Fields & Relationships
7 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Amount
Amount__c
Number(18, 0)
check for payment
check_for_payment__c
Picklist
Created By
CreatedById
Lookup(User)
Last Modified By
LastModifiedById
Lookup(User)
Owner
OwnerId
Lookup(User,Group)
Payment date
Payment_date__c
Date
Payment Name
Name
Text(80)

Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
lease
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Fields & Relationships
7 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Created By
CreatedById
Lookup(User)
End date
End_date__c
Date
Last Modified By
LastModifiedById
Lookup(User)
lease Name
Name
Text(80)
Owner
OwnerId
Lookup(User,Group)
property
property__c
Lookup(property)
start date
start_date__c
Date

- Developed Lightning App with relevant tabs

orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02ugK000003N8eHQAS&retUrl=https%3A%2F%2Forgfarm-5df1e805f2-dev-ed.develop.lightning...
Lightning App Builder
App Settings
Pages
Lease Management
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
Navigation Items
Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.
Available Items
Create
Type to filter list...
Accounts
Activation Targets
Activations
All Sites
Alternative Payment Methods
Analytics
App Launcher
Appointment Categories
Appointment Invitations
Approval Requests
Selected Items
Payment
Tenants
property
lease

orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02ugK000003N8eHQAS&retUrl=https%3A%2F%2Forgfarm-5df1e805f2-dev-ed.develop.lightning...
Lightning App Builder
App Settings
Pages
Lease Management
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
User Profiles
Choose the user profiles that can access this app.
Available Profiles
Type to filter list...
Analytics Cloud Integration User
Analytics Cloud Security User
Anypoint Integration
Authenticated Website
Authenticated Website
B2B Reordering Portal Buyer Profile
Contract Manager
Custom: Marketing Profile
Custom: Sales Profile
Custom: Support Profile
Customer Community Login User
Selected Profiles
System Administrator

- Implemented Flows for monthly rent and payment success

- To create a validation rule to a Lease Object

- Added Apex trigger to restrict multiple tenants per property

- Scheduled monthly reminder emails using Apex class

```
global class MonthlyEmailScheduler implements Schedulable {

    global void execute(SchedulableContext sc) {

        Integer currentDay = Date.today().day();

        if (currentDay == 1) {

            sendMonthlyEmails();

        }

    }


    public static void sendMonthlyEmails() {

        List<Tenant__c> tenants = [SELECT Id, Email__c FROM Tenant__c];

        for (Tenant__c tenant : tenants) {

            String recipientEmail = tenant.Email__c;

            String emailContent = 'I trust this email finds you well. I am writing to remind you that the monthly rent  is due Your timely payment ensures the smooth functioning of our rental arrangement and helps maintain

            String emailSubject = 'Reminder: Monthly Rent Payment Due';

            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();

            email.setToAddresses(new String[]{recipientEmail});

            email.setSubject(emailSubject);

            email.setPlainTextBody(emailContent);
```

- Built and tested email templates for leave request, approval, rejection, payment, and reminders

Search Setup
Setup
Home
Object Manager
email template
Email
Classic Email Templates
Lightning Email Templates
Didn't find what you're looking for?
Try using Global Search.
SETUP
Classic Email Templates
Text Email Template
Leave rejected
Help for this Page
Preview your email template below.
Email Template Detail
Edit
Delete
Clone
Email Templates from Salesforce
Unfiled Public Classic Email Templates
Email Template Name
Leave rejected
Available For Use
Template Unique Name
Leave_rejected
Last Used Date
Encoding
Unicode (UTF-8)
Times Used
Author
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:11 AM
Modified By
Sowmya Team, 6/20/2025, 1:11 AM
Email Template
Send Test and Verify Merge Fields
Subject
Leave rejected
Plain Text Preview
Dear {!Tenant__c.Name},
I hope this email finds you well. Your contract has not ended. So we can't approve your leave
your leave has rejected

Search Setup
Setup
Home
Object Manager
email template
Email
Classic Email Templates
Lightning Email Templates
Didn't find what you're looking for?
Try using Global Search.
SETUP
Classic Email Templates
Text Email Template
Tenant Email
Help for this Page
Preview your email template below.
Email Template Detail
Edit
Delete
Clone
Email Templates from Salesforce
Unfiled Public Classic Email Templates
Email Template Name
Tenant Email
Available For Use
Template Unique Name
Tenant_Email
Last Used Date
Encoding
Unicode (UTF-8)
Times Used
Author
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:12 AM
Modified By
Sowmya Team, 6/20/2025, 1:12 AM
Email Template
Send Test and Verify Merge Fields
Subject
Urgent: Monthly Rent Payment Reminder
Plain Text Preview
Dear {!Tenant__c.Name},
I trust this email finds you well. We appreciate your continued tenancy at our property and I hope you have been comfortable in your residence.

- Approval Process creation

For Tenant Leaving:

For Check for Vacant:

- Apex Trigger

Create an Apex Trigger

Create an Apex Handler class

Developer Console - Google Chrome
orgfarm-5df1e805f2-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
public class testHandler {
public static void preventInsert(List<Tenant__c> newlist) {
Set<Id> existingPropertyIds = new Set<Id>();
for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c WHERE Property__c != null]) {
existingPropertyIds.add(existingTenant.Property__c);
}
for (Tenant__c newTenant : newlist) {
if (newTenant.Property__c != null && existingPropertyIds.contains(newTenant.Property__c)) {
newTenant.addError('A tenant can have only one property');
}

- FLOWS

orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/builder_platform_interaction/flowBuilder.app?flowId=301gK00000AcezaQAB
Flow Builder
monthly payment - V1
Select Elements
Auto-Layout
Last saved on 6/21/2025, 04:20 PM
Active
Run
Debug
View Tests
Save As New Version
Save
Deactivate
Record-Triggered Flow
Start
Object: Payment for tenanat
Edit
Trigger: A record is updated
Conditions: 1
Optimize for: Actions and Related Recor...
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Payme...
Run Immediately
send email
Action
End
Configure Start
Field
Operator
Value
check for payment
Equals
Paid
Add Condition
When to Run the Flow for Updated Records
Every time a record is updated and meets the condition requirements
Only when a record is updated to meet the condition requirements
Optimize Flow
Optimize the Flow for:
Fast Field Updates
Update fields on the record that triggers the flow to run. This high-performance flow runs before the record is saved to the database.
Actions and Related Records
Update any record and perform actions, like send an email. This more flexible flow runs after the record is saved to the database.
Is this flow making an external callout or connecting to an external system?
An asynchronous path is required for flows that involve external systems.
Add Asynchronous Path

- Schedule class:

  Create an Apex Class

Schedule Apex class

Project Documentation - bytec
Welcome to Salesforce: Reset y
Ashwin | Tenant | Salesforce
orgfarm-9cd65242e0-dev-ed.develop.lightning.force.com/lightning/r/Tenant__c/a01gL00000OC6IQQA1/view
Search...
Lease Management
lease
Payment for tenants
property
Tenants
Tenant
Ashwin
New Contact
Edit
New Opportunity
Related
Details
Tenant Name
Ashwin
Owner
Ashwin S
status
Stay
Email
ashwinsanthosh0705@gmail.com
Phone
(812) 412-0802
Property
Concerns
Created By
Ashwin S, 9/16/2025, 2:08 AM
Last Modified By
Ashwin S, 9/17/2025, 2:43 AM
Activity
Filters: All time • All activities • All types
Refresh • Expand All • View All
Upcoming & Overdue
No activities to show.
Get started by sending an email, scheduling a task, and more.
No past activity. Past meetings and tasks marked as done show up here.
Type here to search
31°C
ENG
15:43
18-09-2025

Project Documentation - bytec
Welcome to Salesforce: Reset y
ashwin santhosh | Tenant | Sale
orgfarm-9cd65242e0-dev-ed.develop.lightning.force.com/lightning/r/Tenant__c/a01gL00000OQZSwQAP/view
Search...
Lease Management
lease
Payment for tenants
property
Tenants
Tenant
ashwin santhosh
Tenant was submitted for approval.
New Contact
Edit
New Opportunity
Related
Details
Tenant Name
ashwin santhosh
Owner
Ashwin S
status
Stay
Email
23bsit108ashwins@skacas.ac.in
Phone
Property
ashwin concerns
Created By
Ashwin S, 9/18/2025, 3:16 AM
Last Modified By
Ashwin S, 9/18/2025, 3:16 AM
Activity
Filters: All time • All activities • All types
Refresh • Expand All • View All
Upcoming & Overdue
No activities to show.
Get started by sending an email, scheduling a task, and more.
No past activity. Past meetings and tasks marked as done show up here.
Type here to search
31°C
ENG
15:47
18-09-2025

Project Documentation - bytec
Welcome to Salesforce: Reset y
ashwin santhosh | Tenant | Sale
orgfarm-9cd65242e0-dev-ed.develop.lightning.force.com/lightning/r/Tenant__c/a01gL00000OQZSwQAP/view
Search...
Lease Management
lease
Payment for tenants
property
Tenants
Tenant
ashwin santhosh
Related
Details
Payments (0)
New
Payment for tenants (0)
New
Approval History (2)
Approve
Reject
Step Name
Date
Status
Assigned To
Tenant Approval
9/18/2025, 3:17 AM
Pending
Ashwin S
Approval Request Submitted
9/18/2025, 3:17 AM
Submitted
Ashwin S
View All
Notifications
Mark all as read
Ashwin S is requesting approval for tenant
Tenant Name: ashwin santhosh • Owner: Ashwin S
a few seconds ago
Ashwin S is requesting approval for tenant
Tenant Name: Ashwin • Owner: Ashwin S
5 hours ago
New Guidance Center learning resource available
Set Up Accounts & Contacts
Start storing information about your customers with accounts and contacts.
Sep 16, 2025, 2:32 PM
New Guidance Center learning resource available
Define Your Sales Process
Learn how to guide reps through the sales process.
Sep 16, 2025, 2:32 PM
Type here to search
31°C
ENG
15:47
18-09-2025

FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing

- Trigger validation by entering duplicate tenant-property records

- Validation Rule checking

- Test flows on payment update

- Approval process validated through email alerts and status updates

Starred - 23bsit151rajasuriaa
- Student
Approval History | Salesforce
Homepage | National Task F
NTF Online Survey
orgfarm-cbf9429719-dev-ed.develop.lightning.force.com/lightning/r/Tenant__c/a01gK00000Ks6cnQAB/related/ProcessSteps/view
School
Search...
Lease Management
Property
Tenants
Payment for tenants
Lease
* Tenant__c
Tenants > Rujula Harshini SN
Approval History
2 items • Sorted by Is Pending • Updated a few seconds ago
Approve
Reject
Reassign
Recall
Step Name
Date
Status
Assigned To
Actual Approver
Comments
1
Tenant Approval
9/18/2025, 2:16 AM
Pending
Rajasuriaa R
Rajasuriaa R
2
Approval Request Submitted
9/18/2025, 2:16 AM
Submitted
Rajasuriaa R
Rajasuriaa R
Leaving
Type here to search
31°C
ENG
14:58
18-09-2025

RESULTS

Output Screenshots

- Tabs for Property, Tenant, Lease, Payment

- Email alerts

- Request for approve the leave

- Leave approved

- Leave rejected

- Flow runs

- Trigger error messages

- Approval process notifications

ADVANTAGES & DISADVANTAGES

Advantage

1. **Centralized & Automated** – Stores all lease data in one place and automates renewals, billing, and compliance reminders.
2. **Integration & Compliance** – Works with Salesforce CRM and ensures accurate reporting for regulatory compliance.

Disadvantages

1. **Costly** – Licensing, customization, and maintenance can be expensive.
2. **Complexity** – Requires skilled setup and user training, with dependency on Salesforce platform.

CONCLUSION

The Lease Management System successfully streamlines the operations of leasing through a structured, automated Salesforce application. It improves efficiency, communication, and data accuracy for both admins and tenants.

APPENDIX

Source Code: Provided in Apex Classes and Triggers

Test.apxt: trigger test on Tenant__c
(before insert) {

```
if (trigger.isInsert && trigger.isBefore){
testHandler.preventInsert(trigger.new);

        }  }
```

testHandler.apxc:

```
public class
testHandler {  public
static void
preventInsert(List<

Tenant__c> newlist)

{                    Set<Id>

existingPropertyIds  = new Set<Id>()

                     for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c
          WHERE Property__c != null]) {
                    existingPropertyIds.add(existingTenant.Property__c;
                     } for (Tenant__c newTenant :

                    newlist) {

                              if (newTenant.Property__c != null &&
                    existingPropertyIds.contains(newTenant.Property__c)) { newTenant.addError('A
                              tenant can have only one property');

                              }      }

                    }

          }
```

MothlyEmailScheduler.apxc:

```
global class MonthlyEmailScheduler implements Schedulable {  global
          void execute(SchedulableContext sc) { Integer currentDay =
          Date.today().day(); if (currentDay == 1) {
          sendMonthlyEmails();

                    }

          }  public static void
sendMonthlyEmails() { List<Tenant__c>
tenants = [SELECT Id, Email__c FROM

Tenant__c]; for (Tenant__c tenant :
```

```
tenants) {

                String recipientEmail = tenant.Email__c;
                String emailContent = 'I trust this email finds you well. I am writing to remind you
        that the monthly rent  is due Your timely payment ensures the smooth functioning of our
        rental arrangement and helps maintain a positive living environment for all.';

            String emailSubject = 'Reminder: Monthly Rent Payment Due';
            Messaging.SingleEmailMessage email = new

            Messaging.SingleEmailMessage(); email.setToAddresses(new
            String[]{recipientEmail}); email.setSubject(emailSubject);
            email.setPlainTextBody(emailContent);

              Messaging.sendEmail(new Messaging.SingleEmailMessage[]{email});

        }

    }

}
```