

# Problem Statement

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## LEOTRACKER – Employee Leave Management System (Info + Flow Only)

### PURPOSE

A secure internal platform for companies to manage employee leave applications, view leave balances, and handle approvals through admin-controlled access.

### ROLES

#### Role Description

Admin Controls user access, views all data, approves/rejects leave

Employee Can apply for leave, view personal leave stats, see calendar, and manage profile

### ACCESS CONTROL FLOW

#### Registration Logic (Only Employees Register)

1. Employee visits registration page and enters:
  - Name
  - Email (e.g., jane@ak.com)
  - Password
2. System extracts domain from email → ak.com.
3. Checks if any admin exists with email domain @ak.com.
  - ✓ If yes:
    - Employee is stored in database with:
      - isApproved = false
      - status = "pending"
    - ✗ If no:
      - Show error: "Your company is not onboarded yet."
4. Employee sees:  
*"Registration successful. Waiting for admin approval."*

#### Login Flow

- Employee or Admin enters email & password
- System checks:
  - Credentials match?
  - Is isApproved === true?
- ✓ If yes → login successful
- ✗ If not approved → block login and show:  
*"Your account is not yet approved by your admin."*

#### Example Login Scenarios

Email	Registered As	Domain Exists?	Approved?	Access
<a href="#">dev@ak.com</a>	Employee	✓	✗	✗ Blocked
<a href="#">jane@ak.com</a>	Employee	✓	✓	✓ Allowed
<a href="#">admin@ak.com</a>	Admin	✓	✓	✓ Allowed
<a href="#">user@xyz.com</a>	Employee	✗	✗	✗ Rejected

### EMPLOYEE DASHBOARD (After Login)

Once approved, the employee logs in and lands on the dashboard with 4 tabs:

#### Tab 1: Dashboard (Apply Leave + Stats)

#### Leave Form:

- Leave Type:
  - Casual/Sick (Combined) (Total: 12)

- Earned (Total: 15)
- Work from Home (Total: 18)
- Unpaid (No limit)
- **Start Date / End Date**
- **Is Half Day?** /
- **Comment:** Reason for leave
- **Submit Button**

On submit: data saved with status = pending, shown to admin for review.

#### Below Form: Leave Stats Table

Leave Type Total Used Remaining

Casual/Sick	12	4	8
Earned	15	2	13
WFH	18	5	13
Unpaid	$\infty$	3	$\infty$

Unpaid always shows as:

Total: 0 | Used: X | Remaining: 0

#### Tab 2: Calendar View

- Monthly view showing:
  - Approved leaves:  Green
  - Pending leaves:  Yellow
  - Rejected:  Red

#### Example:

5th-7th March = "Earned Leave" (Approved) shown in green

15th March = "Casual" (Pending) shown in yellow

#### Tab 3: My Leaves

Table of Past Leaves:

Type	Dates	Half Day	Status	Comment
Casual	4 Jul – 5 Jul	<input checked="" type="checkbox"/>	Approved	Fever
Earned	15 Aug	<input checked="" type="checkbox"/>	Rejected	Personal work

#### Filter Options:

- Leave Type (e.g., Earned, WFH)
- Status (Approved, Rejected, Pending)
- Date Range (e.g., Jan–Mar 2025)

#### Tab 4: My Account

- View and edit:
  - Phone number
  - Address
  - Profile picture
- Email field: **read-only**
- Logout button

#### ADMIN DASHBOARD

Once logged in, admin sees:

#### Tab 1: Pending Employee Requests

- Table of all unapproved employee registrations
- Admin can:
  - Approve
  - Reject (with comment)

Example:

Name Email Status Action

Ravi [ravi@ak.com](mailto:ravi@ak.com) Pending [Approve][Reject]

## ❖ Tab 2: All Employees

- View list of all employees under their domain
- Filters:
  - Approved / Rejected
  - Active / Inactive

## ❖ Tab 3: All Leave Requests

- View all leave requests across employees
- Can filter by:
  - Leave Type
  - Status
  - Date range
  - Employee
- Admin can Approve / Reject (with optional comment)

## ❖ Tab 4: Reports (Optional)

- Export leave data
- Summary per employee
- Graphs (Future)

## 💻 LEAVE TYPES + RULES

### Leave Type Limit Per Year Notes

Casual/Sick	12 combined	Can be taken in half days
Earned	15	Full day or half day
WFH	18	Remote days
Unpaid	Unlimited	Deducted from payroll (warning)

## ⌚ KEY VALIDATION RULES

Validation Point	Rule
Email domain check	Employee's domain must match at least one approved admin
No direct employee login	If isApproved === false, block login
Leave overlap check	Prevent same-date overlapping leaves
Half-day logic	Only allow half-day if start and end date are the same
Leave balance check	Block apply if balance is zero (except unpaid)

## ⌚ Data Flow – Apply Leave Example

### 👤 Employee submits:

```
{  
  type: "casual",  
  startDate: "2025-07-12",  
  endDate: "2025-07-12",  
  isHalfDay: true,  
  comment: "Doctor appointment"  
}
```

### ❖ Backend:

- Validates leave balance
- Checks for overlap
- Adds record with:

```
{  
  status: "pending"  
}
```

## ❖ Future Upgrades You Can Add

Feature	Benefit
Email Notifications	Employee gets email when leave is approved/rejected
Push Notifications	Realtime alerts inside dashboard

OTP for Registration    More secure onboarding

Company Admin Panel    Each company can onboard their own admin

Analytics for Admins    Pie charts of leave usage

## CONCLUSION

You're not just building a leave app, bro — you're designing a **secure, domain-controlled, admin-authorized** HR-grade platform.

This design ensures:

- No unauthorized access
- Full admin control
- Smooth employee UX
- Robust leave tracking

Let me know if you want next:

- All API endpoints listed (info-only)
- Frontend routes & component ideas
- Admin dashboard feature breakdown
- Sample use cases

We're in architect mode now — and it's going strong 😊.