

Automated Employee Time-Off Management System

Company: Zenith HealthTech

Category: Human Resources / Operations

Version: v1.0

Last Updated: 10/10/2025

Overview

At **Zenith HealthTech**, efficient HR operations are vital to maintaining employee satisfaction and compliance.

This project implements an **automated employee time-off management system** using **Airtable, Zapier, and Fillout Forms** to streamline the entire Paid Time Off (PTO) process, from submission to approval, balance tracking, and notifications.

Employees are entitled to **22 working days of Paid Time Off (PTO)** annually. This automation ensures that leave requests are handled consistently, balances are always accurate, and HR is free from repetitive administrative tasks.

The workflow provides:

- Centralized employee, department, and manager data
 - Automated notifications and balance updates
 - Transparent approval and rejection tracking
 - Scheduled monthly reminders for leave balance
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Detailed Description

Business Problem

Traditionally, time-off management is handled manually through spreadsheets and email chains. This creates inconsistencies, delays, and a lack of visibility into employees' remaining leave balances. Managers may overlook requests or approve excess leave, and HR must manually track balances, a process that becomes error-prone at scale.

Automation Solution

This system centralizes all employee and manager data in **Airtable**, automates the approval and notification processes through **Zapier**, and maintains real-time leave balances. When an employee submits a leave request, the system automatically routes it to their department manager for approval, updates the balance upon approval, and notifies all relevant parties.

Expected Outcomes

- 80–90% reduction in HR manual tracking time
- Transparent and traceable leave records
- Real-time accuracy of remaining PTO
- Improved employee experience with faster responses
- Scalable design for any organization with department-based hierarchy

How It Works (Functionality)

1 Data Structure in Airtable

The system uses three linked tables:

1. Employees — stores employee name, email, department, manager link, leave entitlement (22 days), leave taken, and remaining balance.

Formula: $\text{Balance} = 22 - \text{Leave Taken}$

2. Departments — defines departments, their managers, and director-level approvers (directors approve managers' leave).

3. Leave Requests — captures each request with fields:

- Employee (linked)
 - Start Date, End Date, Days Requested
 - Notes (optional comments from employee)
 - Manager Notes (for approval/rejection reason)
 - Status (Pending / Approved / Rejected / Auto-Rejected)
 - Approval Timestamp
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2 Leave Request Submission

Employees submit requests via a **Fillout form** dynamically linked to the “**Leave Requests**” table in Airtable.

- The form is personalized per employee via URL parameters (e.g., name and record ID).
 - It displays the employee name (non-editable) and only allows valid date selections within the current year.
 - A validation rule ensures the **End Date** is after the **Start Date**.
 - The form link is included in the monthly HR email showing the employee’s remaining balance.
 - Each new submission triggers Zapier to validate and route the request automatically.
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3 Balance Validation (Zapier Logic)

When a new request is received, Zapier retrieves the employee’s current **Balance** from the “Employees” table and performs multi-branch validation:

If Remaining PTO \geq Requested Days:

- **Holiday Exclusion Logic:**
Before approval, the system checks official holidays (via Google Calendar API or a holiday database).
Any overlapping holidays are automatically excluded from the total leave days calculated, ensuring employees are not charged for public holidays within their leave period.
- Proceed to manager notification.
- Update Airtable field → **Manager Notified = true**.

If Remaining PTO = 0:

- Block request and send auto-reply stating no remaining leave.

If Remaining PTO < Requested Days:

- Update record → **Status = Auto-Rejected (Insufficient Balance)**.
- Send automated email to employee:
"Your leave request could not be processed because you have only {{Balance}} days remaining. Please adjust and resubmit."

This ensures no request is processed beyond the employee's entitled limit.

4 Manager Approval Workflow

If balance validation passes, Zapier sends an email to the manager (approver) with a link to a short fillout form containing:

- Employee name and requested dates
- Action buttons to **Approve / Reject**
- A notes field for the manager to add comments

The manager clicks an action button, submits and updates the Airtable record.

- **Status = Approved or Rejected**
 - **Manager Notes**
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5 Employee Notification

When a manager's action is recorded:

Zapier sends an automatic email to the employee confirming the outcome.

If approved:

"Your leave request for {{DaysRequested}} days has been approved."

If rejected:

"Your leave request has been declined. Reason: {{ManagerNotes}}."

Airtable is updated to indicate that the employee has been notified of the manager's decision.

6 Leave Balance Update

If a request is approved:

- Zapier increments the **Leave Taken** field in the "Employees" table.
- Airtable automatically recalculates:
Balance = 22 - Leave Taken

This ensures balances stay accurate and up to date.

7 Leave Balance Reset (Automated Airtable Logic)

Balances automatically reset to **22 days** at the start of each new year through an Airtable **rollup + formula setup**, eliminating the need for a separate Zapier workflow.

8 Monthly Leave Balance Reminder (Automated HR Workflow)

A scheduled Zap runs on the **1st of every month** to:

- Retrieve all employees from the “Employees” table.
- Filter to include only those with **Balance > 0**.
- Send each employee a personalized email showing:
 - Remaining leave balance
 - Dynamic Fillout form link for new requests

Example message:

“You currently have {{Balance}} leave days remaining. Click below to submit your next request.”

- Update field → **Last Reminder Sent = {{zap_meta_human_now}}**

This ensures employees stay informed and reduces end-of-year leave congestion.

Tools Required

Tool	Purpose
Airtable	Database for employees, departments, leave requests
Zapier	Workflow automation (notifications, approvals, balance updates)
Gmail	Communication for approvals and notifications

Size of Project

Medium (≈5–6 automations / Zap steps)

Includes:

- Request creation
 - Balance validation
 - Manager notification
 - Approval handling
 - Employee notification
 - Monthly reminder
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Setup Requirements

- Airtable account (free or Pro tier)
 - Zapier account with multi-step Zaps
 - Gmail integration for notifications
 - HR data import (employees, departments, balances)
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Deployment Time Estimate

- Initial setup: 3–4 hours
- Testing and fine-tuning: 1–2 hours
- Custom approval email setup: 1 hour

- Monthly reminder automation: 30 minutes
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Value Proposition

Benefit	Impact
Time saved	≈ 10–15 HR hours per month (manual tracking removed)
Error reduction	Eliminates manual balance errors and late approvals
Employee experience	Instant notifications and clarity
Transparency	Audit trail of all approvals and balances

Estimated ROI Example:

If HR time is valued at \$25/hour and automation saves 12 hours monthly:

ROI = $(12 \times \$25 \times 12 \text{ months}) - (\$20/\text{month Zapier} + \text{Airtable})$

≈ **\$3,400 annual value**

Known Limitations

- Airtable native forms can't show live balance dynamically (only static notes).
- Requires Zapier premium plan for multi-step automations.
- Manual intervention needed if annual entitlement changes per employee.
- Approval links must remain secure (avoid sharing externally).

Testimonials / Use Cases

Tested internally at Zenith HealthTech. The HR team achieved full automation of leave approvals and reporting and reduced processing time by 85% in the first month.

Size Classification

Medium — 6 connected automation steps, 3 integrated tools.

Estimated ROI

\$3,400/year in time savings (based on mid-size HR team).

Version & Updates

Version	Date	Description
v1.0	Initial	End-to-end automation setup
v1.1	+ Balance validation	Added Zapier filter to auto-reject over-limit requests
v1.2	+ Monthly reminder	Added scheduled HR emails for employees with remaining leave

Next Steps / Possible Enhancements

- Add a self-service portal (via Softr or Fillout) for dynamic forms showing live balance.
- Integrate Slack bot commands for real-time leave requests.
- Add departmental analytics dashboard to track leave trends.

Disclaimer: Zenith HealthTech is a fictitious company created for demonstration and portfolio purposes only.