Case Study Introduction: Leave Tracking System:

Estimated time needed: 5 minutes

Welcome to the Leave Tracking System case study! Throughout this optional case study, you'll learn how you can use Java object-oriented programming concepts to build a practical application that manages employee leave requests.

What is a Leave Tracking System?

A Leave Tracking System helps organizations manage employee time-off requests that allows employees to:

- Submit leave requests
- Check leave balances
- View request status
- Cancel pending requests

Leave tracking systems allow managers to:

- Review leave requests
- Approve or deny leave requests
- Generate reports on team availability

Why use this case study?

Leave tracking is an excellent example for learning object-oriented programming because the leave system:

- Contains real-world objects (employees, leave requests, leave types)
- Demonstrates relationships between objects
- Involves data management and business rules
- Scales from simple to complex implementations

Your learning journey

As you progress through each module, you'll gradually build different components of the Leave Tracking System:

- **Module 1**: Create the basic classes for employees and leave requests
- **Module 2**: Expand the system with inheritance and polymorphism for different types of leave
- **Module 3**: Implement Java collections to store and manage multiple requests
- **Module 4**: Use file operations to save and load leave data
- **Module 5**: Implement date handling for leave periods and calculations
- **Module 6**: Complete the leave system with the creation of a functional application

Let's get started!

Author(s)

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