

SPOT for Expt. No. 3b: Leave Management Tracker

A startup company wants to build an internal Java application to help its employees track their leave history. Each employee applies for leave by specifying a start date and end date. The application should Accept start and end dates using the appropriate Java Date and Time API classes, Calculate the total number of days of leave taken, Check if the leave overlaps with a weekend (Saturday or Sunday). Display the day of the week on which the leave starts and ends. Format the leave dates in a user-friendly format like ``"dd MMM yyyy (E)"`` (e.g., ``15 Aug 2025 (Fri)``).

Spot for Expt. No. 3a Library Notification System

A university library system wants to implement a notification module that automatically sends customized reminders to students about their borrowed books. The system should generate messages with student names, book titles, due dates, and action items (like returning or renewing the book). You are assigned the task of developing this module using Java Strings, ensuring efficient string processing and proper formatting. The message should be generated in this format: ``"Hello [StudentName], the book '[BookTitle]' is due on [DueDate]. Please return or renew it soon."``, All student names must be properly capitalized regardless of input, If the book is overdue (compare current date and due date as strings), append, Your book is overdue! check for specific user responses like ``"return"`` or ``"renew"``. Demonstrates at least ****five different String methods****. Shows a comparison of two strings created using both ``==`` and ``.equals()``.