

# Vision

1. To develop and deploy a flexible vacation time management application for managers and employees alike to use to manage their vacation time.
2. A **Vacation Tracking System (VTS)** will provide individual employees with the capability to manage their own vacation time, sick leave, and personal time off, without having to be an expert in company policy or the local facility's leave policies.

# Function

1. **Manager Approval**  
Enables manager approval (optional).
2. **Request Access Range**  
Provides access to requests for the previous calendar year, and allows requests to be made up to a year and a half in the future.
3. **Email Notifications**  
Uses e-mail notification to request manager approval and notify employees of request status changes.
4. **HR and System Admin Overrides**  
Enables the HR and system administration personnel to override all actions restricted by rules, with logging of those overrides.
5. **Manager Awarding Personal Leave**  
Allows managers to directly award personal leave time (with system-set limits).
6. **Web Service Interface**  
Provides a Web service interface for other internal systems to query any given employee's vacation request summary.

# Non-Function

1. The app must be a web app.
2. Enables manager approval (optional).

# Constraints

1. Must be considered in the context of any **existing systems** (and possibly other proposed systems).
2. The decision to deliver this functionality as a **Web application**.
3. **Uses existing hardware and middleware**.
4. **Implemented as an extension** to the existing intranet portal system, utilizing the portal's **single-sign-on (SSO) mechanisms** for all authentication.
5. **Keeps activity logs** for all transactions.
6. **Interfaces with the HR department's legacy systems** to retrieve required employee information and updates.

# Domain

Leave management is currently handled **manually**, causing **delays**, **errors**, and an additional **workload on the HR department**.

# Pseudocode

## START

- Employee enter to internal portal by credentials
- Display balances with previous 6 months and up to 18 months in the future

## IF employee

IF Want to create new request

IF Balance > 0

Enter title, description, time and date

IF data is valid

Return to the new page

IF need to manager approve

Send notification to the manager to approve

Set the state to **(pending approval)**.

ELSE

Set the state to **(pending approval)**.

EISE

Show the page and show the error message

Correct data or Cancel the Request

## IF manager

- clicking on a link embedded in the e-mail OR Employee enter to internal portal by credentials
- The VTS homepage displays the manager's leave requests, as well as a separate section to display leave requests awaiting his approval from his subordinates.
- The manager selects each of these one at a time to individually approve or deny.
- displays the details of the requested time
- IF IsAccepted
  - Change The State
- ELSE
  - enter an explanation
- Change The State
- An email notification is sent immediately to the employee.

# Actors

1. **Employee:** The main user of this system. An employee uses this system to manage his or her vacation time.
2. **Manager:** An employee who has all the abilities and goals of a regular employee, but with the added responsibility of approving vacation requests for immediate subordinates. A manager may award subordinates comp time, subject to certain limits set in the system.
3. **Clerk:** A member of the HR department who has sufficient rights to view employees' personal data and is responsible for ensuring that employees' information in all HR systems is up to date and correct. An HR clerk can add or remove nearly any record in the system. In the real world, HR clerks may or may not be employees; however, if they are employees, they use two separate login IDs to manage these two different roles.
4. **System Admin:** A role responsible for the smooth running of the system's technical resources (e.g., Web server, database) and for collecting and archiving all log files.