
Case Study for Leave Management System

Workflow based Online Leave Application



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1. The Client

Human Resources department of one of the leading Manufacturing Company based at United States has taken a major initiative of automating all the functions. Leave Application & Approval process was identified as the best candidate for implementing a workflow based solution. Windows SharePoint was the best fit & hence was chosen to implement the solution.

2. The Project

The requirement of the solution is online application & approval of the leaves availed by Gateway employees. Additionally, feature was required to view the Leave History, Current Leave Balance was when required. Automatic credit of leaves on a periodic basis & at the year end leave balance updation process will be automated as part of the solution. This solution should be closely integrated with Gateway's home grown Project Monitoring System.

3. Scope of the Project

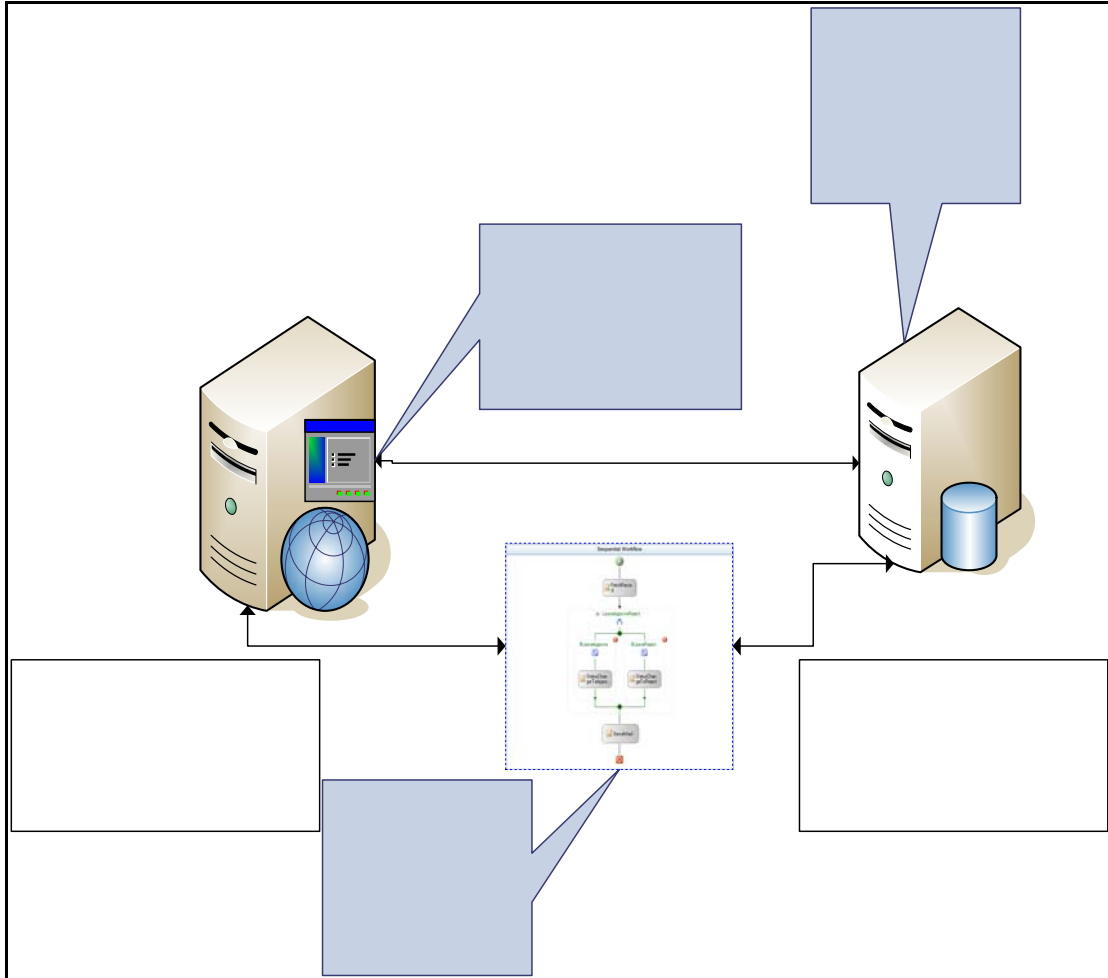
- Employee can apply/cancel a leave application.
- Immediate superior can approve/reject the leaves. Auto-escalation in case the leave is not approved for a defined period of time.
- Accurate leave balance at any point in time.
- Employee-wise leave history should be available.

4. The Challenges

- Integrating SharePoint Services with Windows Workflow Foundation.
- Creation / Destruction of WorkFlow Instance at appropriate time.

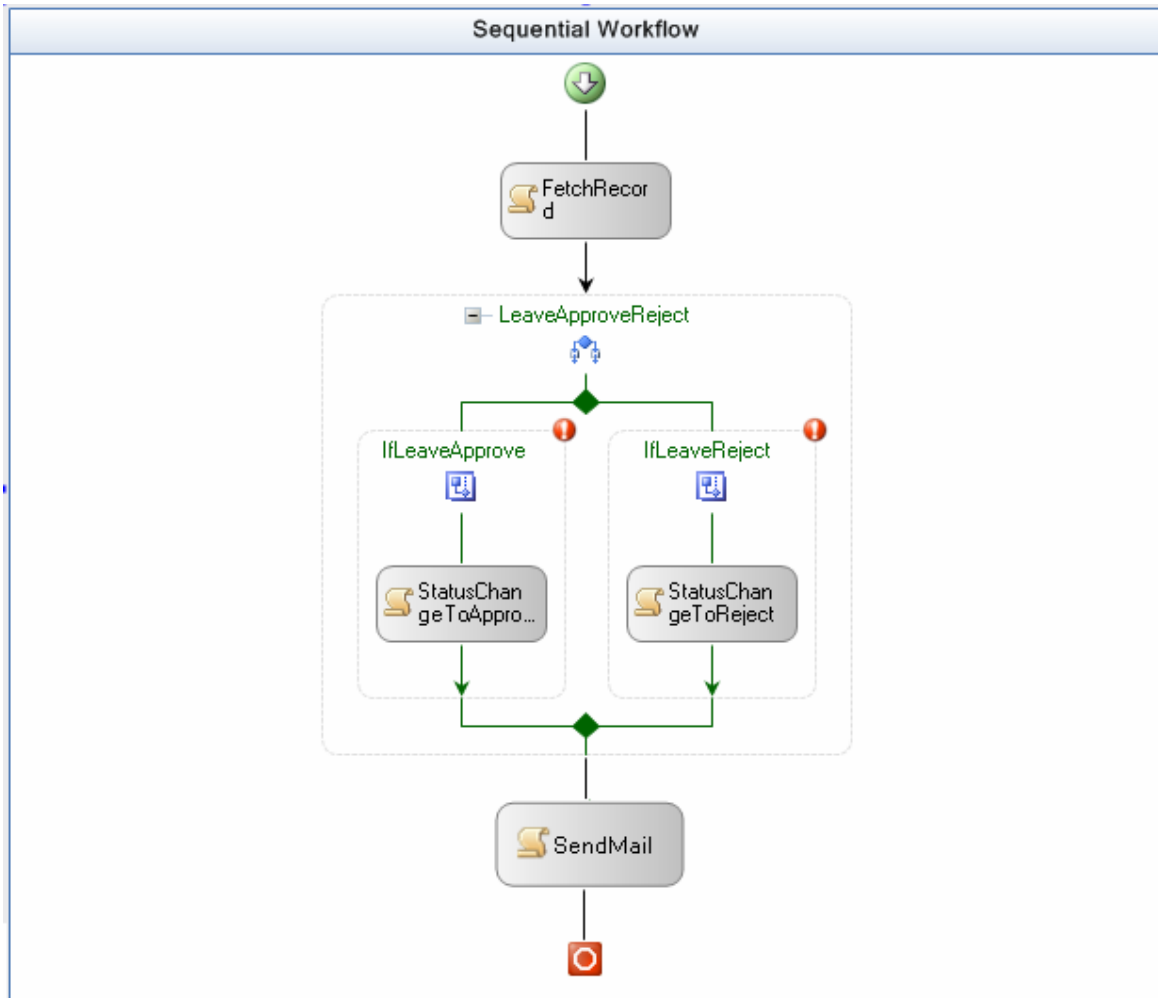
5. The Solution

Application Architecture



Application entity

WorkFlow Details:



- A WorkFlow is used to fetch record from the database
- Based on the user action, change the status of the leave application.
- Send Mail to Applicant | Substitute for the Approval | Rejection of Leave.

6. Tools and Technologies

- Microsoft Visual Studio 2005 - is used to implement the Web Parts created for the SharePoint Site.
- Microsoft Share Point Services 3.0 – is used to publish the leave management application.
- Microsoft Share Point Designer 2007 – is used for designing the web parts.



- Microsoft WorkFlow Foundation – is used to implement the process from Leave Application to Leave Approval/Rejection.
- MS SQL Server 2005 - Backend Database is maintained in MS SQL Server 2005, for writing Stored Procedures, Queries and Functions.

7. Solution Features

- Leave Application
 - Auto Calculation of Leave Days based on the Selection of Leave Period.
 - Send Mail through WorkFlow to Substitute, Approver.
- Leave Balance
 - Display current balance for all leave types defined for an organization.
 - Display history of all leave taken by the user who is currently loggen in.
- Pending Request
 - Approver will get the list of leave requests applied by employees.
 - Approver can approve/reject. Employee will be notified by mail.
- Leave Cancellation
 - User can cancel leaves which are already approved by approver.
 - Application will be forwarded for approval.
- Leave History
 - Features to view the leave history for each calendar year of all the employees.
- Company Holidays
 - Displays lists of company's holiday for current calendar year.
- Leave Policy
 - Display the current leave policy of organization.
- Monthly Report
 - Leave details of all the employees can be emailed to Payroll department.



8. Benefits

- In this application all the business rules and business policies are applied dynamically. No change is required in the application when any of the above change.
- It is template based solution, so if we need to implement this solution on another SharePoint server, the template can be imported & some configuration changes are required.