

OBJECT ORIENTED PARADIGM 19CSE204

LEAVE MANAGEMENT SYSTEM

GROUP: 6

USE CASE DOCUMENT

Done by:

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Introduction:

Ranging from the small companies in the town to the large organizations and multinational companies, an online leave management system has become a necessity for these associations to have a smooth and flexible workplace environment. Though the organizations would want their employees to be at the workplace with complete involvement, there might be times when the employees would have to take day-offs.

Motivation:

A lot of organizations today work day and night to improve the efficiency of the world in progressing. In such a case, no organization can compromise on the halt in the work flow. They would want their employees to give in their full cooperation and concentration in making the organization the best. But at unavoidable circumstances, the employees would have to take day-offs which would bring in a pause in the work flow. To efficiently handle the leaves taken by the employees and to arrange for the compensation during the employees' absence, we bring in this leave management system where most of the work gets done automatically and thus the paper work gets reduced. The motivation behind this project is to provide an efficient leave management system for organizations which would reduce the tedious paper work and make the whole system well-organized.

Mission:

Our mission is to promote online leave management system where the tedious paper work is reduced and the allotment of leaves for the employees are done very efficiently. This kind of an online system helps in organizing the leave records in a systematic manner and hence the work flow is done smoothly.

Role and responsibilities:

This online leave management system is developed to maintain a schematic database where the employees leave records are well-maintained. Such a system is imposed to maintain a better work environment and nurture the needs of the employees as well as the organization.

ACTORS

- EMPLOYEE
- HR MANAGER
- SYSTEM ADMIN
- PAYROLL DEPARTMENT

USE CASES

TRIGGER	USE CASE NAME
➤ COMMON (ALL 4 ACTORS)	Log in Update user's profile
➤ EMPLOYEE	Request leave View leave history
➤ HR MANAGER	Process leave request Check leave reports
➤ SYSTEM ADMIN ➤ PAYROLL DEPARTMENT	Manage info Process Payroll

USE CASE: 1

Use Case Name	Log in
Description	This use case describes how an employee logs into the leave management system for applying leave.
Primary Actors	Employee, HR manager, System Admin
Secondary Actors	None
Pre-condition	1.The employee is given their login details to access the system. 2.Employee system should be connected to the internet. 3.One employee can have only one user name. 4.If the employee type is admin then, full access to view and make changes in a record if any.
Post -condition	1.After a successful login, a notification mail is sent to the user mail. 2.User is logged in. 3.The employee has access to the functions of the system.
Trigger	Employee requests to login.
Stakeholders	Employees

Normal Scenario:

1.	The system requests the employee to enter his/her user name and password.
2.	The employee enters his/her user name and password.
3.	The system validates the entered user name and password.
4.	The system logs the employee into the system.
5.	The system displays the main form and the use case ends.

Alternate Scenario:

1.	If in the basic flow the system cannot find the name or the password is invalid, an error message is displayed.
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| 2. | The employee can type in a new user name or password or choose to cancel the operation at which point the use case ends. |
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Exceptions:

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| 1. | Employee provides invalid login parameters. |
| 2. | Employee's user name is already in use. |
| 3. | Employee is requested to select another use name and password. |

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USE CASE: 2

Use case name	Update user's profile
description	This use case documents the process a user should go through to update his or her profile.
Primary actors	Employee, HR manager
Secondary actors	The system admin
Pre-condition	<ul style="list-style-type: none"> • The user has an active internet connection and the system is functioning properly. • That user belongs to the company and has an existing record of his profile. • The website is active and accessible by the user.
Post-condition	<ul style="list-style-type: none"> • The user has updated his member profile successfully. • It has been validated by the system admin and updated in the management's records without any inconsistency.
Trigger	The Employee/ HR manager triggers the use case, when he has the necessity to update his profile.
Stakeholders	<ul style="list-style-type: none"> ▪ Employee ▪ HR manager

- System admin
- Management's records

Normal Scenario:

1.	This use case is started when the user decides to edit his member profile.
2.	The user logs in into the website by entering his current username and password. [Exception: incorrect username or password]
3.	The system displays the user's profile and other relevant details.
4.	The user updates his profile by editing details like his name, email Id, mobile number, address, password or bank account details.
5.	The system prompts the user for conformation.
6.	The user confirms that the information entered is correct. [Alternate : Change profile]
7.	The system admin validates the information entered after checking the relevant documents of proof uploaded by the user. [Exception : User profile validation error].
8.	The system admin updates the user's profile to the management's user records. (Member repository)
9.	A mail is sent to the user that the information was updated successfully.
10.	This use case ends when the user receives visual conformation of the update.

Alternate Scenario:

1.	Location in the basic flow where it is triggered: Step 6 [Change profile]
2.	At [change profile] the user indicates that he has entered some incorrect information.
3.	Actions taken and location at which basic flow is resumed: the System redirects to step 4 of the basic flow.
Exceptions:	
1.	Handle invalid information:

	<p>a) At [User profile validation error] - any of the fields are entered incorrectly.</p> <p>b) The System indicates the fields that were entered incorrectly and prompts the user to make the necessary corrections.</p> <p>c) The flow of events is resumed at Basic Flow Step 4.</p>
2.	<p>Incorrect login details:</p> <p>a) At [incorrect username or password]</p> <p>b) The system indicates that either the username or password has been entered incorrectly.</p> <p>c) And prompts the user to re-enter it.</p> <p>d) The flow of events is resumed at Basic Flow Step 2.</p>

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USE CASE: 3

Use case name	Request leave
description	<ul style="list-style-type: none"> ➤ The employee will initiate this use-case. ➤ Here, the employee will request leave to his higher authority. This use-case document provides the detailed sequential process of how this request leave system works and the roles of actors like Employee and HR manager and other supporting actors.
Primary actors	Employee
Secondary actors	HR manager, System admin

Pre-condition	<p>1. The person who request for leave should be an Employee of that organization.</p> <p>2. The employee should be provided with an account in a website or an application or an user-interface with which he/she can request for leave.</p> <p>3. The employee who generates the leave should have leave balance.</p>
Post-condition	A notification will be sent to the Employee irrespective of approval or rejection of leave.
Trigger	Employee will trigger the system by requesting for leave.
Stakeholders	The enterprise/organisation, Employee, HR manager, Payroll department.

Normal Scenario:

1.	Employee will log into the website/software using the required credentials such as username and password for his account.
2.	Employee will check for his leave balance.
3.	Then the Employee creates a leave request.
4.	Employee will fill out appropriate details about the details regarding his/her leave such as start and end date of leave, no. of days for leave, reason for leave etc.
5.	This request made by Employee(actor) will be sent in the form of notification mail to the HR manager.
6.	Employee receive notification when HR manager updates details about the requested leave.
7.	Employee will update/respond according to the reply mail sent by HR manager.

Alternate Scenario:

1.	The Employee can send a mail to support department/HR manager.
2.	Microsoft/Google forms can also be filled as an alternative for applying leave.
3.	Manual handwritten request letters are also applicable.
Exceptions:	
1.	The employee entered credentials may be wrong. In this case, the Employee has to re-enter the credentials. When the Employee forgets his credentials, System admin can rectify or retrieve it and the Employee has to enter the new credentials.
2.	When internet connection fails, an error message will be displayed.
3.	The website/software where the Employee leave request should be made is blocked at that point of time. It can be rectified by System admin.
4.	When employee's account is inactive/blocked. It can be rectified by System admin.
5.	When the leave date and time entered by the Employee is wrong, the Employee change/update the request.

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USE CASE: 4

Use case name	View leave history
description	An employee can view his leave history (details include no. of leaves taken, no. of leaves accepted, no. of leaves rejected, type of leaves taken, leave balance, leaves yet to be processed, etc)
Primary actors	Employee
Secondary actors	HR manager, System admin
Pre-condition	Employee should login through his active account to view the leave history

Post-condition	<i>A detailed analysis of the leaves that correspond to the employee</i>
Trigger	<i>Employee (where he triggers to view the leave history)</i>
Stakeholders	<i>Nil</i>

Normal Scenario:

1.	<i>The employee who wishes to view his/her leave history will have to first log in through his/her current active account in the company's software.</i>
2.	<i>To log in, the employee must enter his username followed by password.</i>
3.	<i>Password verification will be done by the system and the employee is taken to his/her account.</i>
4.	<i>Now the employee can view his/her leave history which includes no. of leaves taken, no. of leaves accepted, no. of leaves rejected, types of leaves taken, leave balance, and leaves yet to be processed.</i>
5.	<i>While viewing leave history, the employee can also cancel the leaves that are yet to be availed.</i>
6.	<i>Once the required work is done, the employee can log out from his account.</i>

Alternate Scenario:

1.	<i>An alternate scenario to view the leave history of a particular employee would be to request the system admin to send him the details of his/her leave history through mail.</i>
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Exceptions:

1.	<i>When the employee does not have an active account (in that case the employee must contact system admin to activate his account)</i>
2.	<i>When the user forgets his password to log in to his account (in that case he/she must change the password for further logins)</i>
3.	<i>When there occurs a system failure (in that case the employee must request the system admin to rectify the software issue)</i>

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USE CASE: 5

Use case name	Process leave request
description	The HR manager will have to approve/reject a leave that was requested by an employee
Primary actors	HR Manager
Secondary actors	Employee
Pre-condition	<ul style="list-style-type: none"> • An employee should have requested for a leave • HR Manager should log in from an active account to process the requested leave
Post-condition	The leave requested by the employee gets approved or rejected
Trigger	HR Manager (he approves or rejects a leave)
Stakeholders	Employee

Normal Scenario:

1.	The HR Manager will have to first log in through his/her active account by giving username and password.
2.	Password verification will be done by the system and the HR Manager is taken to his/her account.
3.	He/she will be able to see the leaves requested by the employees of the company.
4.	He/she can approve or reject any of the leaves requested by the employees.
5.	In case of rejection, the HR Manager should give a feedback on the reason behind rejection.
6.	Once the required job is done, he/she will have to log out from the account.

Alternate Scenario:

1.	An alternate scenario to process a leave that was requested for is when the HR Manager can just send a mail to the employee on the approval/rejection of the particular leave and later updating the database on the leave history of the employee.
2.	In case of rejection of a particular leave, the HR Manager can ask the employee to cancel the leave himself and request for the leave on a different day.
Exceptions:	
1.	When the employee does not have an active account (in that case the employee must contact system admin to activate his account)
2.	When the user forgets his password to log in to his account (in that case he/she must change the password for further logins)
3.	When there occurs a system failure (in that case the employee must request the system admin to rectify the software issue)

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USE CASE: 6

Use case name	Check leave reports
description	This use case documents the process the HR should follow to view all the leave details and generate the leave reports of the employee.
Primary actors	HR manager
Secondary actors	System admin, payroll department
Pre-condition	1.The HR manager has an active internet connection and the system is functioning properly. 2.The website is active and accessible by the HR manager.

Post-condition	<p>1.The HR manager has generated the employee leave reports successfully.</p> <p>2.It has been sent to the payroll department for further processing and calculations.</p>
Trigger	The HR manager triggers the use case, when he wants to generate the monthly/yearly leave reports.
Stakeholders	<ul style="list-style-type: none"> ▪ Employees ▪ HR manager ▪ System admin ▪ Management's records ▪ Payroll department ▪ Organization

Normal Scenario:

1.	This use case is started when the HR manager decides to generate the monthly/yearly leave reports of the employees.
2.	The HR manager logs in into the website by entering his current username and password. <u>[Exception: incorrect username or password]</u>
3.	The system displays the user's profile and other relevant details. <u>[ALTERNATE: The website is under repair]</u>
4.	The HR manager monitors the approval status of each leave request.
5.	Then he generates a monthly/yearly report for each of the employees. <u>[Exception: Error while generating the leave reports]</u>
6.	He also ensures that the number of leaves taken by each of the employees should not exceed the given limit.
7.	The HR manager sends the downloaded monthly/yearly leave reports to the payroll department.
8.	This use case ends after the HR manager receives an email from the Payroll department that the report is received.

Alternate Scenario:

1.	<p>[website is under repair]</p> <ul style="list-style-type: none"> ➤ Location in the basic flow where it is triggered: Step 3[Exception: The website is under repair]
	<ul style="list-style-type: none"> ➤ Condition that triggers it: The HR manager is not able to generate the soft copy of leave reports.
	<ul style="list-style-type: none"> ➤ Actions taken and location at which basic flow is resumed: The HR manager generates the hard copy through the output devices like printer. The basic flow resumes at step 6.
Exceptions:	
1.	<ul style="list-style-type: none"> ➤ Error while generating the leave reports <ul style="list-style-type: none"> ✓ At [error while generating the reports] – The HR manager is unable to download the leave report. ✓ He contacts the system admin via mail or call. ✓ Explains the issue faced, and the name of the error displayed ✓ The flow of events is resumed at Basic Flow Step 6, after the issue is solved.
2.	<ul style="list-style-type: none"> ➤ Incorrect login details: <ul style="list-style-type: none"> ✓ At [incorrect username or password] ✓ The system indicates that either the username or password has been entered incorrectly ✓ And prompts the user to re-enter it. ✓ The flow of events is resumed at Basic Flow Step 2.

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USE CASE: 7

Use case name	Manage info
description	<ul style="list-style-type: none"> ➤ This use-case is initiated by the System admin. ➤ The system admin will maintain and manage the details of the employee in their company.
Primary actors	System admin

Secondary actors	HR manager, Employee and Payroll department
Pre-condition	<p>1. System admin should have the privilege to work in the database</p> <p>2. The person whose details are being maintained should be an employee of that company (in present or in the past).</p> <p>3. Each Employee must have an employee_ID(unique).</p>
Post-condition	System Admin will add or delete or update and modify Employee details and he/she will have a complete view over the database and other reports can be generated about the Employee.
Trigger	System administrator (System admin)
Stakeholders	The enterprise/organisation, Employee, Payroll department.

Normal Scenario:

	<p><u>Main flow:</u></p> <p>1. System administrator will log into the system.</p> <p>2. System administrator will perform the required operations in the existing database.</p> <p><u>Sub-flow:</u></p> <p><u>Create new employee:</u></p> <p>1. When a new employee enter the organization, the System administrator will create a new record for that employee providing employee name, employee_ID, password, designation, dob, etc.</p> <p>2. When System Administrator completes adding the details, System will create a new Employee record.</p> <p><u>Update employee:</u></p> <p>1. The System administrator can update/modify the information of a particular Employee such as changing the employee's new address, update the mobile number, update the designation of Employee.</p>
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2. The attendance details and the project details of the Employee will be updated on a daily/weekly basis.
3. When System Administrator completes the steps, System will update the Employee information.
- View employee:**
1. The system admin can view the details of all Employee or an particular Employee.
- Remove employee:**
1. When the System admin wants to remove particular Employee or remove set of information, this use-case helps them.

Alternate Scenario:

NO

	Exceptions:
	<p>1. Stored details about employee are wrong/invalid, then the information should be renewed.</p> <p>2. When the internet connection fails, an error message is displayed.</p>

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USE CASE: 8

Use case name	Process Payroll
description	The use case allows the system admin to prepare a record of leaves taken and the salary to be given to an employee.
Primary actors	Payroll department
Secondary actors	Employee

Pre-condition	1.Payroll must be updated on a daily and/or hourly basis 2.The system admin to be connected to a network. 3.The system admin must be logged onto the system in order for this use case to begin.
Post-condition	1.Payment authorization approvals are recorded. 2.System will generate payslip. 3.System will delete employee's account and update the database.
Trigger	Press the proceed button on employee's information page to pay the employee.
Stakeholders	System admin

Normal Scenario:

1.	Determining the employer identification number
2.	Collect relevant employee tax information.
3.	Calculate gross pay
4.	Determine each employee's deductions.
5.	Calculate the net pay and pay your employees.
6.	Keep payroll records and adjust to mistakes.

Alternate Scenario:

1.	Get the employee's quick pay details.
2.	Verify employee's quick pay details.
3.	Enter the ID to transfer amount.
4.	Transfer amount.
5.	Get a notification message that amount was sent.
6.	Verify once again and come out of it.

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