

Indian Institute of Information Technology, Vadodara

College HR Management and Payroll System

Project Report

CS301 Software Engineering Project – Autumn 2015

team #02 - ninEngineers

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Abstract

Our system provides a solution for the HR management and the payroll system. It is designed to decrease the workload on the HR admin, accountant as well as the employees. The tedious task of applying for leaves and loans and managing its records are easily handled by the software. The employee does not need to submit the application on paper. All this is managed online. An automated system is in place to apply for the leave, and when the admin approves of the application, the accountant can update to the payroll account of the employee. This system helps in automatizing the whole system of payroll which is managed currently by office staff using pen and paper.

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Introduction

Assistance and ease of the workload of the administrative staff of the Indian Institute of

Information Technology, Vadodara (IIITV) is the main goal of the software solution we are providing.

A user friendly, quality product is our top priority throughout this development.

This is a comprehensive system with customizable parameters to compute various pays and salaries through web application. It can also keep a close check on efficient data manipulation, data security with a simple design and elegant user-interface.

The system that we have designed can be accessed through the intranet of IIITV.

We have designed our system for three kinds of users, HR admin, accountant and the employees. The system provides solution for all the basic operations that need to be performed in a payroll management system.

Requirements

- **Employees**

The employees can use the system by accessing it through any browser on their system. It is a web-based system which makes it platform independent.

- **HR Admin and Accountant**

The HR admin and the accountant should have a working database management system on their systems.

System Description

The system is divided into three modules:

- HR Admin
- Accountant
- Employee

Different kinds of rights are provided to different kinds of users.

After getting access to the portal, the user sees a login page.

- An employee can log in the system using employee ID. When an employee sign up for the first time, an email will be sent to his/her mail ID with the password generated by the system. Employee can now log in using the employee ID and the password.
- The HR admin and the accountant will be provided with a login ID and a password. They can access the system using there ID and password.

If user forgets the password, he/she can request a new password by clicking on the Forgot Password link. A mail will be sent to his/her registered email id with the new system generated password.

Once the login is successful, the user will be redirected to the respective pages according to the rights given to them.

HR Admin

The rights given to the HR admin are as follows:

1. Add New Employee
2. Maintain Loan Records
3. Maintain Leave Records
4. Update Salary Component Details
5. See Employee Profile
6. Update Increments/ Promotions/ Overtime
7. Update Investments/ Recovery/ Penalty
8. Add Bonus
9. Remove Employee
10. Change Password
11. Logout

These rights are given to the admin as they are governed by the policy of the organization. When a new employee joins the organization, his details are fed to the system to make him a part of the current system. The details of leaves of all the employees are maintained including the encashments of leaves(if any). Loan applications are processed by the admin. He has the rights to edit the percentage/amount of various salary components. He can also update the promotion status, bonus, increments and overtime. The records of investments, recovery and penalty are also maintained by the admin. When an employee leaves the organization, the admin can remove him from the system, keeping all his previous data stored.

Accountant

The rights given to the accountant are as follows:

1. Update Accepted Leaves
2. Update Accepted Loans
3. Generate Payslips
4. Generate Bank Payslips
5. Change Password
6. Logout

Once the leave application of an employee is accepted by the HR admin, it is forwarded to the accountant so that the details may be updated in the payroll system. The accountant can update the employee's profile accordingly. Similarly, the accepted loans are updated in the employee's profile by the accountant. Payslips can be generated for all the employees by the accountant. He can also generate bank payslips with all the details that is needed to transfer the amount to the employee's bank account, which is then forwarded to the bank for further processing.

Employee

The rights given to the employee are as follows:

1. Leave Account
2. Loan Account
3. Update Profile
4. Logout

The employee can apply for leaves or loan online. He can also keep a track of the loans and leaves he has taken, and the number of leaves he can take in the specified time interval. He will get a notification when his leave/loan is accepted/rejected notifying him of the status of his request. He can also update his profile which will change the details in the official files.

Future Scope

The integration of the bank can be done so that the salary of the employees are transferred directly to their accounts. At present, our system generates bank payslips which has to be sent to the bank manually for further transaction. This manual intervention can be eliminated to automatize the system completely.

At present, the payslip for each employee is generated by the system and it can be accessed only by logging in the system. Further modifications can be made to send a mail containing the payslip directly to the employee's email account at the end of every month.

Conclusion

The development of this system helped us understand the basic principles of software engineering. With good understanding, few conflicts and difference in opinions, lot of learning, the group was able to develop a reasonably high-quality product in a timely and cost-effective manner whatever we could deliver. As a team we are very much thankful to each other for supporting as well this course and our course instructor to impart the knowledge and importance of Software Engineering Principles and to give us this precious experience of working together on a project which could always be cherished in our lives. This was a really nice experience for our life.