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Vishwashanti Payroll Systems

Vikrant Chole[1], Srushty Ganvir[2], Rushab Bagwan[3], Ankit Manapure[4], Ragini Suryavanshi[5], Anshul Ganvir[6]

Assistant Professor[1], Students[2, 3, 4, 5, 6]

Department of CSE

GHRAET, Nagpur

***Corresponding Authors' email id**: vikrant.chole@raisoni.net[1], rushbhab@gmail.com[3]*

Abstract

In our paper, attendance management system is introduced through which the salary will be calculated of the employee. This system consists of a hardware through which the employee can mark their attendance and once the attendance is made, the salary of the employee can be calculated using their personal details and based on their attendance.

Keywords: *Payroll Systems, Attendance management system, Vishwashanti*

I. INTRODUCTION

Within a company managing all employees attendance and then to calculate their salary on the basis of it has become a very difficult and tedious challenge as these produces errors, and also wastes a lot of time. For this stated reason, an efficient attendance management system using biometrics is designed. These Biometric Identification Systems are widely used for unique identification of humans mainly for the verification and identification.

This system takes attendance electronically with the help of a facial recognition device and the records of the attendance are stored in a database. Facial recognition is often referred to as, analyses characteristics of a person's face image input through a camera where it measures overall facial structure, distances between eyes, nose, mouth and jaw edges. These measurements are then retained within a database which marks their attendance in it's the face is detected and the attendance of the employee is marked, salary of the employee is further calculated where t

checks for the employees attendance based on the days they worked and alsoincluding their leaves which is fetch from database and thus through their total hours spent the salary is calculated accordingly. This salary is calculated on the basis of their total attendance and leaves together making the total hours and this total hours is used to calculate their monthly salary.

II. LITERATURE REVIEW

A number of related works exists based on different methods and principles. One of which is to effectively monitor the attendance of students, employees and many more.

A. Face Recognition

In face recognition the use of face is done to mark the attendance of the person. Many such systems exist where there is the use of this system like in schools to mark the attendance of student's or teacher's, in other organization's as well.

B. IRIS Recognition

In this system the iris or the eyes are used to mark the attendance of the person and mostly this type of system is used in big organizations.

C. Finger Print

In the thumb print system, the thumb is used to mark the person's attendance where the person gives their thumb impression onto the system. This type of system is used mostly in schools and colleges. System's like these exist but there is no such system's that after marking their attendance calculate the salary of employee's in organization or for the teacher's in schools and colleges.

III. METHODOLOGY

PROPOSED ALGORITHM AND MODULES

We are implementing Viola-Jones algorithm which is basically used for object detection. This algorithm first turn's the input image into an integral image. Where then this image is used to mark the in and out time of the person and gets stored in the database. There are a few modules used in the system as:

1. Employee Details

In this module all the details of the employee is present in the database that is we can feed the details of them, retrieve it, edit it or delete it. All the employee details are present including the personal details and other basic information of the employee where all the details get stored to the database and we can retrieve it any

time we want to. As soon as the employee marks the attendance then in and out time gets stored in their own details in the database.

2. Payroll

In this module the calculation part is done that is calculation of the salary at the end of each month. This is done by taking the in and out time of the employee from database for the whole month and in the end of each month the salary is calculated by the total number of hours the employee worked for the month.

3. Payslip

In this module as the salary is calculated at the end of the month then the pay slip is finally given to the employee that is based on their attendance and this slip contains the basic details of employee along with the amount as their salary.

IV. DESIGN AND IMPLEMENTATION

The following diagram will show how the whole procedure works:

As from the diagram below it is clear that as the employee marks their attendance it gets stored in the database as in and out time and using this in and out time the salary of the employee is calculated at the end of each month and thus the pay slip of the salary is given to the employee at the end.

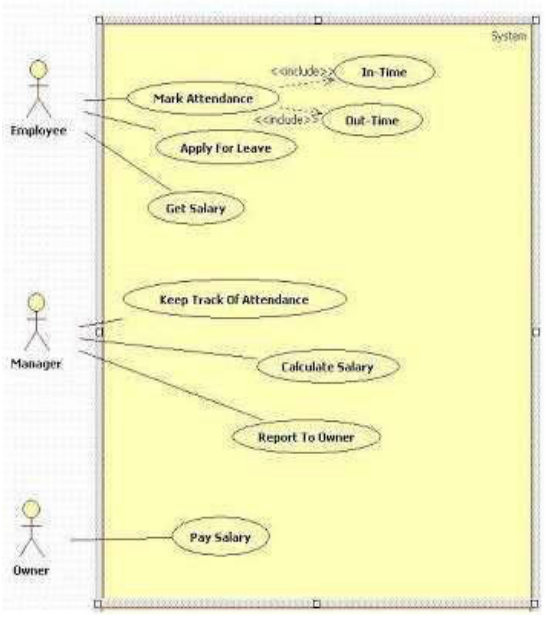

Fig (4.1): Use case diagram

V. RESULT AND DISCUSSION

Fig (5.1): Payroll

Above diagrams clarify how the system works where employee marks their attendance and this attendance gets stored in the database as in and out time and using this in and out time the according to that monthly working hours of employee is calculated and for salary calculation hourly rate of that particular employee is retrieved from employee details database.

Salary of the employee is calculated at the end of each month by multiplying hourly rate and total working hours. Incentive is also added in salary in payroll model like petrol allowances, DA, HRA, etc. and the admin can also manage the advance related operation, deduction is also calculate like ESIC, PF,LWF etc.

Fig. (5.2): Pay Slip

Thus the pay slip of the salary is given to the employee based on their attendance they got the salary is thus calculated.

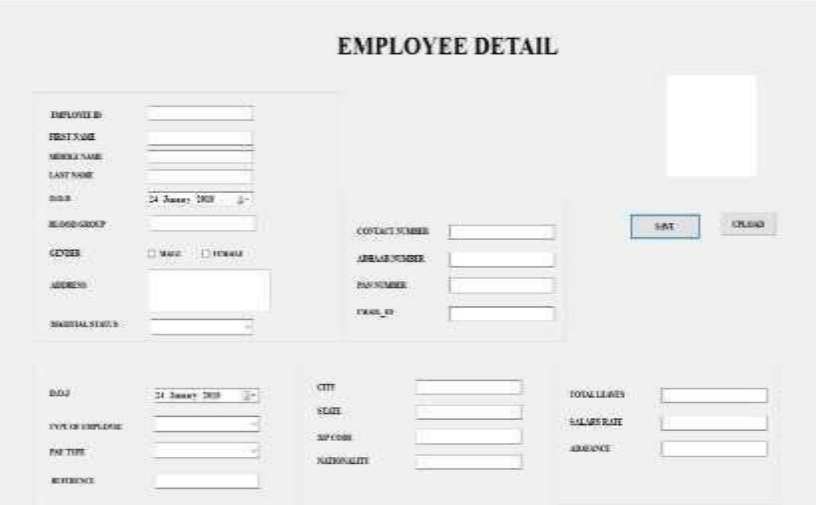

Fig (5.3):Payroll

In above model employee details are store in database and these detail is used at a time of salary calculation and attendance calculation like employee joining date is used to check whether the employee is permanent or temporary i.e. if the difference between employee joining date and current date is 6 month or greater than 6 month then the employee is permanent otherwise employee is temporary.

In our system the attendance management and salary calculation part is done but in future scope it may perform further works as the employee may apply for leave on their own through their employee id present in database, the employee may have access to all the details and can also update it by their own, the system can be used for further management of other details like healthcare.

VI. CONCLUSION AND FUTURE SCOPE

Our system mainly focuses on the attendance management and calculation of their salary based on this attendance. In the system we used a face recognition system that marks the attendance of employee and through this the salary is further calculated and in the end of each month the pay slip is given to the employee.

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