

Personnel Management System for Employees

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ABSTRACT:

Every business in today's scenario needs a personnel management system and so does the business of providing cabs to users. This project includes the personnel management of the H.R department and the admin department of the cabs. This means that the project is a desktop application that can be accessed by only the admin of the business.

The personnel management system includes the personal as well as official details of the employees. The departments have been divided by keeping the concept of the various employees that can be needed in a cab system. For instance the drivers, the managers, the helpers, etc. Administrator controls the entire application. Administrator can add, delete, edit and view all employee details and admin can create Employee Pay slip. Administrator also manages the data Related to organizations and businesses. Admin and HR can add and Delete Pay slip details.

Administrator generates reports abased on various criteria. This is the first and the most important module for the project. This can contain different information according to the given admin. When a user enters the employee's module it contains a blank field for the query to be entered, a button for adding new employees, and another button for Updating the employee details and the last for updating or editing the account details. The employees is a main source for the employee table which contains the employee description including employees' name, father's name, account number, phone number and other relevant information. Only the admin has access to this page and the table can be updated only by him.

Keywords: Password, authentication, staff personnel, staff attendance, salary database.

1. INTRODUCTION

The concept of personnel management along with finger recognition enables an organization to manage their database effectively and securely. Instead of having to use a series of passwords and numbers, users will be able to log on to their accounts by placing one of their fingers into the scanner. A portable scanner is plugged into the computer's USB port and user's near-infra-red light to check the unique pattern of veins inside the finger.

The hardware that we use for finger recognition is portable. The unit can be plugged into different computer systems. Staff personnel and attendance management system is an easy way to keep track of all records along with attendance of staffs within an organization. It covers the requirements of the personnel department in terms of day to day monitoring of staffs, calculation of overtime and transfer of relevant information to payroll system and manpower analysis.

1.1 RESEARCH OBJECTIVES

The main objective of this research is to critically analyze various forms of biometric technology systems and how they have been used in the past till the present time, especially on the issue of staff highlights various factors that are to be considered when implementing a biometric system for a particular purpose.

2. SYSTEM OVERVIEW

The proposed system provides solution to manage the accounts and database problems through the use of personnel management software that is interfaced to a fingerprint device. The staff information (name, address, dob, gender, contact number.) and the fingerprint is enrolled first into the database. The fingerprint is captured using a fingerprint device.

For accessing the account, the employee places his/her finger over the fingerprint device and the employee id number is sent to the database for record management.

2.1 SYSTEM DESIGN

A personnel management system is a highly specialized system that enables an organization to manage the database by comparing a single fingerprint image with the fingerprint images previously stored in the database.

The major factors in designing a personnel management system include:

choosing the hardware and software components and integrating both to work together, defining the system working mode (verification or identification), dealing with poor quality images and other programming language exception, and defining administration and optimization policy.

Employee personnel system framework is divided into three parts: hardware design, software design, and personnel management approach and report generation.

2.2 SOFTWARE SNAPS

The **MD5** message-digest algorithm is a widely used cryptographic hash function producing a 128-bit (16-byte) hash value, typically expressed in text format as a 32 digit hexadecimal number. MD5 has been utilized in a wide variety of cryptographic applications, and is also commonly used to verify data integrity.

MD5 was designed by Ronald Rivest in 1991 to replace an earlier hash function, MD4. The source code in RFC 1321 contains a "by attribution" RSA license.

In 1996 a flaw was found in the design of MD5. While it was not deemed a fatal weakness at the time, cryptographers began recommending the use of other algorithms, such as SHA-1—which has since been found to be vulnerable as well. In 2004 it was shown that MD5 is not collision resistant. As such, MD5 is not suitable for applications like SSL certificates or digital signatures that rely on this property for digital security. Also in 2004 more serious flaws were discovered in MD5, making further use of the algorithm for security purposes questionable; specifically, a group of researchers described how to create a pair of files that share the same MD5 checksum. Further advances were made in breaking MD5 in 2005, 2006, and 2007. In December 2008, a group of researchers used this technique to fake SSL certificate validity, and CMU Software Engineering Institute now says that MD5 "should be considered cryptographically broken and unsuitable for further use", and most U.S. government applications now require the SHA-2 family of hash functions. In 2012, the Flame malware exploited the weaknesses in MD5 to fake a Microsoft digital signature.

2.3 DEVELOPMENT PLATFORM

The application is developed using following technologies:

Language: PHP, JavaScript, HTML

Platform: Swings

Database: My SQL

3. SYSTEM OPERATION, TESTING AND DISCUSSION

The enrolment and registration phase is an administrative phase in which the administrator needs to log in. The user fingerprint as well as other information is stored for the first time in the database for employee registration.

The possible cases are:

- Match (of PASSWORD): captured user fingerprint features are matched with stored fingerprint templates. The user is automatically recorded for the authentication of information.
- Non-match (of PASSWORD): the user is not accepted for logging into the database of the organization. A message is shown in the textbox that fingerprint is not found.

2. RESULTS AND DISCUSSION

According to the study done, most of the respondents are familiar with the fingerprint biometric technique since it is the most effective and oldest biometric technique and as popular as face recognition. Face recognition method is not as effective as fingerprint. The affordability, acceptability, efficiency, flexibility and sustainability of fingerprint recognition system is good.

3. SCOPE OF THE STUDY

The scope of this project is that this it is a desktop application and it can be further extended to a client application which will give the access to all the employees of the personal management to access this software. This project itself helps the admin to organize salaries and leaves and the employees will also be able to use this system for requesting their leaves as per the requirements.

4. CONCLUSION AND RECOMMENDATION

Since password management helps employees of the proposed company to interact and coordinate with the company in a organized manner and helps the company to keep a track of all the salaries and leaves of the employees and. Hence, password technology is surely a global ITC strategy that can be used to enhance staff personnel management system.

Therefore, this study has come to a conclusion that fingerprint is the best biometric technology system that can sustainably solve the lingering problem of staff database management in the proposed organization. This will eliminate the crimes and unauthorized access to the private data. It is therefore, recommended that attention should be paid to several factors before recommending biometric technology as a means of improving the productivity of an organization business processes.

5. REFERNCES

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