PROJECT REPORT

Employee Salary Management

GROUP 17

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DBMS PROJECT

Introduction

The Employee Salary Management System project is designed to automate the process of managing employee salaries and related tasks for an organization. The system is designed to handle various tasks such as adding employee information, calculating salaries, and generating payroll reports. The system uses a database to store all employee information, including their personal details, job title, salary information, and tax details

REQUIREMENT SPECIFICATION

Web Server: APACHE

- Apache is chosen as the web server due to its flexibility, power, and widespread support. It serves as the bridge between the backend PHP scripts and the client's web browser, managing HTTP requests and responses.

Frontend: HTML, CSS, Javascript

- The front end will provide an intuitive user interface for both administrators and users. Users can log in, submit complaints, and view the status of their previous complaints. Administrators can view all complaints, assign personnel, and manage user and personnel data.

Backend: PHP

- The back end will handle business logic, database operations, user session management, and integration of front end with the database. It ensures secure login, data processing, and provides APIs for the front end.

- The backend of the help desk system is developed using PHP, a popular server-side scripting language. PHP handles all the logic of the application, including user authentication, data processing, and interaction with the MySQL database.

- It processes the requests sent from the client side, interacts with the database for data retrieval or storage, and sends the response back to the web browser.

Database server: MySQL

- MySQL is used as the relational database management system. It is robust, reliable, and ideal for handling high-volume data transactions typical in a help desk scenario.

Web Browser: Google Chrome or any Compatible Browser

- The frontend is optimized for all modern web browsers, including Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge, ensuring wide accessibility and consistent user experience across different platforms.

Operating System: Windows or any equivalent OS

- The system is designed to be operating system agnostic, functioning seamlessly on Windows, macOS, Linux, or any other system capable of supporting a web browser and an internet connection.

Functional Components:

Employee Information Management:

This component stores and manages employee details like personal information, job title, salary, and tax details in a secure database, accessible to authorized personnel.

Payroll Calculation:

Automates salary calculation based on job title and hours worked, while managing deductions such as taxes and benefits, ensuring accurate and timely payroll processing.

Pay-slip Generation:

Generates electronic and printed pay-slips for employees, incorporating calculated salary and deductions, enhancing transparency and communication.

Reports Generation:

Empowers users to generate various payroll reports, including summaries, tax, and deduction reports, and allows customization to meet specific organizational needs.

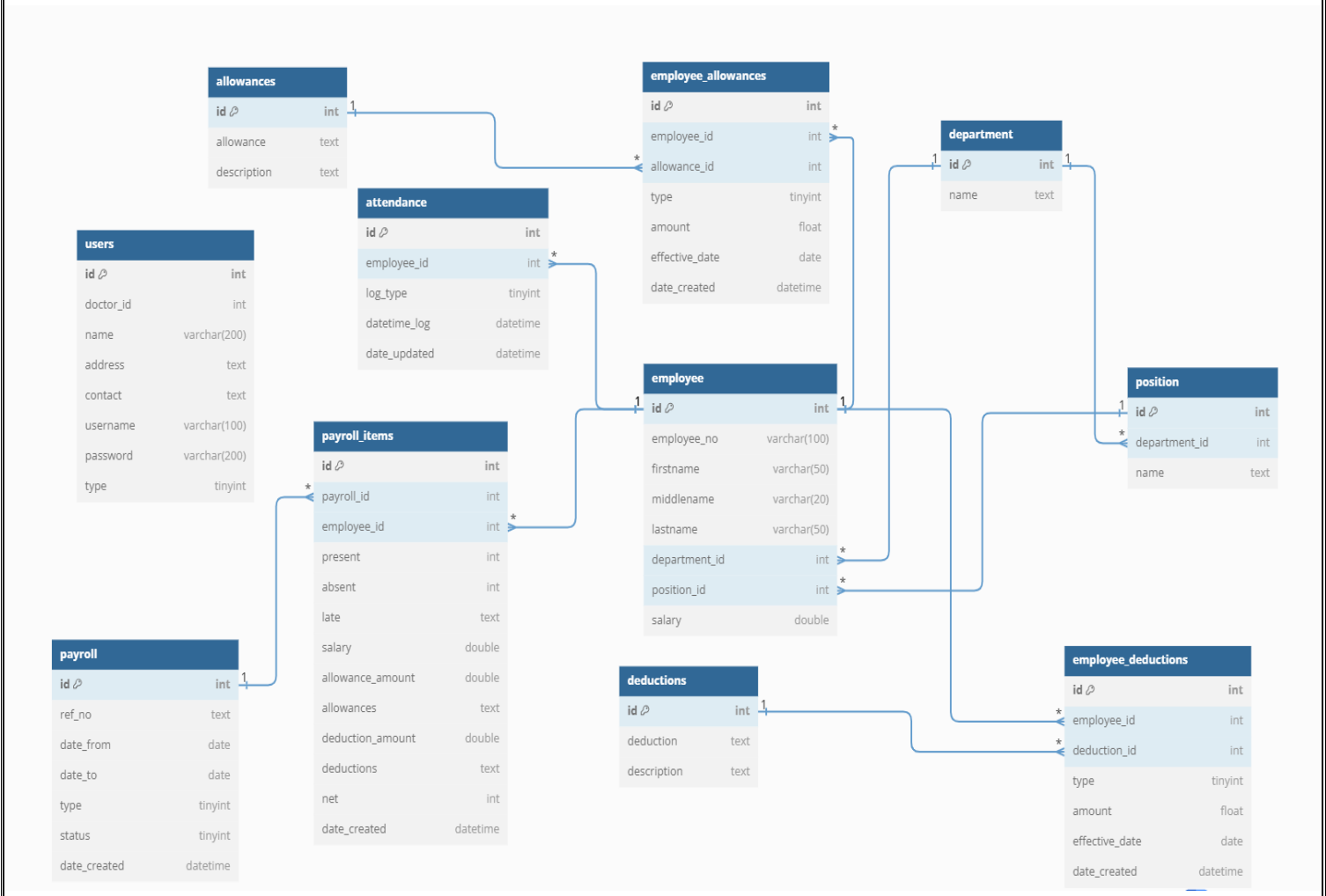
Integration with Other Systems:

Facilitates seamless data exchange with accounting, HR, and attendance systems, ensuring coherence and efficiency across organizational processes.

User Roles and Permissions:

Assigns distinct access levels to users, safeguarding sensitive data and ensuring compliance with security protocols and regulatory requirements.

ER Diagram


allowances
id int
allowance text
description text
employee_allowances
id int
employee_id int
allowance_id int
type tinyint
amount float
effective_date date
date_created datetime
department
id int
name text
attendance
id int
employee_id int
log_type tinyint
datetime_log datetime
date_updated datetime
users
id int
doctor_id int
name varchar(200)
address text
contact text
username varchar(100)
password varchar(200)
type tinyint
employee
id int
employee_no varchar(100)
firstname varchar(50)
middlename varchar(20)
lastname varchar(50)
department_id int
position_id int
salary double
position
id int
department_id int
name text
payroll_items
id int
payroll_id int
employee_id int
present int
absent int
late text
salary double
allowance_amount double
allowances text
deduction_amount double
deductions text
net int
date_created datetime
payroll
id int
ref_no text
date_from date
date_to date
type tinyint
status tinyint
date_created datetime
deductions
id int
deduction text
description text
employee_deductions
id int
employee_id int
deduction_id int
type tinyint
amount float
effective_date date
date_created datetime

Different Relations Used

The **Employee Payroll Management System Database** consists of 11 tables. It has the **Department**, **Position**, **Allowances**, **Deductions**, **Allowances**, **Attendance**, **Employee**, **Employee Allowances**, **Employee Deductions**, **Payroll**, **Payroll Items/Payslip**, and **Users** Tables.

The **Department Table** stores all the list of departments in the company. This table is connected to both the **Position** and **Employee** tables. The data stored in this table helps to identify the certain departments of the employees.

Department Table

The Position Table stores all the Employees' Positions in the company. Each of the positions is connected to the department which means the position is only available for a certain

Department

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Department ID	int	11
name	Department Name	TEXT	

Position Table

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Position ID	int	11
department_id (FK)	Department ID	int	11

Allowances Table

The Allowances Table stores all the allowances available for the company's employees.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Allowance ID	int	11
allowance	Allowance Name	Text	
description	Allowance's Description	Text	

Deductions Table

The **Deductions Table** stores all the allowances available for the company's employees.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Deduction ID	int	11
deduction	Deduction Name	Text	
description	Deduction's Description	Text	

Employee Table

The **Employee Table** stores the list of the employees of the company. This contains fields about the basic personal information and employee's details to the company.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Employee ID	int	11
employee_code	Employee's Company ID Code	varchar	100
firstname	Employee's First Name	varchar	250
middlename	Employee's Middle Name	varchar	250
lastname	Employee's Last Name	varchar	250
department_id (FK)	Department ID	int	11
position_id (FK)	Position ID	int	11
salary	Employee's Monthly Salary	double	

Employee Allowances Table

The Employee Allowances Table store the list of allowances of each employee. Employees' Allowances might be different to others and others might not have. This table contains a field that helps the system to identify when (Monthly, Semi-Monthly) the system will add the other earnings of the employee.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Employee Allowance ID	int	11
employee_id (FK)	Employee ID	int	11
allowance_id (FK)	Allowance ID	int	11
type	Payroll Type to Add the Allowance (1 = Monthly, 2 = Semi-Monthly, 3 = once)	tinyint	1
amount	Allowance Amount	double	
effective_date	The date when the allowance will be added to the payslip	date	
date_created	Date/Time of the data inserted	DateTIme	

Employee Deductions Table

The **Employee Deductions Table** store the list of deductions of each employee. Like the Allowance Table, Employees Deduction might be different from others and others might not have. This table contains a field that helps the system to identify if when (Monthly, Semi-Monthly, or once) the system will deduct the amount to the certain employee.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Employee Allowance ID	int	11
employee_id (FK)	Employee ID	int	11
deduction_id (FK)	Deduction ID	int	11
type	Payroll Type to deduct the Deduction (1 = Monthly, 2 = Semi-Monthly, 3 = once)	tinyint	1
amount	Deduction Amount	double	
effective_date	The date when the deduction will be added to the payslip	date	
date_created	Date/Time of the data inserted	DateTIme	

Attendance Table

The **Attendance Table** stores all the attendances of the employees. Each employee will have 4 data per day in this table. This data could be the employees for Time-in, Lunch-out, After

Lunch-in, and Time-out. This also contains a Date Time log that will be used in calculating the rendered working hours of the employees each working day.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Attendance ID	int	11
employee_id (FK)	Employee ID	int	11
log_type	Attendance Log Type (1 = Time IN, 2 = Lunch Out, 3 = After Lunch In, 4 = Time Out)	tinyint	1
datetime_log	Log's Date and Time	Date	

Payroll Table

The Payroll Table stores the payroll cut-offs of the company. The system relies on this table on how to compute the employees' payslips. The system will also fetch the employees' attendances between the cut-off's date range.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Payroll ID	int	11
ref_no	Payroll Reference No.	varchar	100
date_from	Payroll Cut-off start date	Date	
date_to	Payroll Cut-off end date	Date	
type	Payroll Type (1 = Monthly, 2 = Semi-Monthly)	tinyint	1
status	Payroll Type (1 = New, 2 = Computed)	tinyint	1
date_created	Date/Time when the data has been inserted	DateTime	

Payslip Table

The Payroll Item/Payslip Table stores the payslip details of each employee for a certain payroll. This table contains the number of presents, absences, late of the employee. The Allowances and Deductions JSON Data of employees is also stored in this table.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	Payslip ID	int	11
payroll_id (FK)	Payroll ID	int	11
employee_id (FK)	Employee ID	int	11
present	Employee's days of present	tinyint	3
absent	Employee's days of absences	tinyint	3
salary	Base Salary Amount of the Employee for the certain Cut-off	double	
allowance_amount	Total Amount of the Employee's Allowance	double	
allowances	Employee's Allowance JSON Data	TEXT	
deduction_amount	Total Amount of the Employee's Deduction	double	
deductions	Employee's deduction JSON Data	TEXT	
net	Employee's NET Income	double	
date_created	Date/Time when the data has been inserted	DateTime	

Users Table

Lastly, the Users Table. This table doesn't have any relation with the other tables above. This table only stores the system users' credentials.

FIELD NAME	DESCRIPTION	TYPE	LENGTH
id (PK)	User ID	int	11
name	User Name	TEXT	
username	Username	TEXT	
password	User Password	TEXT	
type	User Type (1 = Administrator, 2 = Staff)	tinyint	1