MAPÚA MALAYAN DIGITAL COLLEGE

A college under Mapúa Malayan Colleges Laguna

MotorPH OneSuite System Documentation

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3rd Term, S.Y. 2023-2024

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I. INTRODUCTION & PURPOSE

MotorPH OneSuite is a comprehensive solution designed to revolutionize MotorPH's payroll management, simplifying what was once complex into a seamless and efficient process.

MotorPH OneSuite transcends basic automation by offering a secure and integrated platform tailored to meet all payroll requirements. From centralized employee data management to automated calculations and reporting, the system ensures precision, streamlines workflows, and promotes regulatory compliance.

This document serves as your definitive guide to unlocking the full potential of MotorPH OneSuite. It provides clear, concise instructions to help you navigate the system effectively, whether you are a payroll administrator overseeing operations or an employee utilizing self-service options.

1. Business Goals

MotorPH OneSuite is designed to achieve several key business objectives:

a) **Enhanced Efficiency:** Automate manual tasks, minimizing administrative burden and freeing up valuable time for strategic initiatives.

b) **Unwavering Accuracy:** Ensure error-free calculations for salaries, deductions, and taxes, leading to peace of mind and increased data integrity.

c) **Streamlined Compliance:** Stay ahead of ever-changing regulations with a system that facilitates adherence to all legal tax and payroll requirements.

d) **Robust Security:** Protect sensitive employee payroll data with robust security measures, ensuring confidentiality and data protection.

e) **Scalable Solution:** Adapt to your evolving needs with a system that scales seamlessly to accommodate your growing workforce and changing payroll complexities.

f) **Empowered Employees:** Offer employees secure self-service options for accessing payslips and managing their payroll information.

By achieving these goals, MotorPH OneSuite aims to transform your payroll process into a strategic asset, driving efficiency, compliance, and success within your organization.

2. System Features and Requirements

(1) Data Management and Connectivity (MySQL)

(a) Purpose: Ensures reliable storage, retrieval, and management of data.

(b) Functionality: Connects to a MySQL database for all CRUD (Create, Read, Update, Delete) operations.

(c) Value: Provides a robust backend to support various application features with efficient data handling.

(2) Authentication and Authorization with RBAC

(a) Purpose: Secures access to the system based on user roles.

(b) Functionality: Implements Role-Based Access Control (RBAC) to restrict access to certain features and data.

(c) Value: Enhances security by ensuring that users only have access to resources appropriate for their roles.

(3) User Account Management

(a) Purpose: Manages user accounts within the system.

(b) Functionality: Allows for creation, updating, deactivation, and deletion of user accounts.

(c) Value: Facilitates user lifecycle management, ensuring that the system maintains accurate and up-to-date user information.

(4) Time In / Time Out

(a) Purpose: Tracks employee working hours.

(b) Functionality: Provides interfaces for employees to log their work start and end times.

(c) Value: Ensures accurate tracking of employee attendance and working hours for payroll and performance evaluations.

(5) Service Request Management System

(a) Purpose: Manages service requests submitted by employees.

(b) Functionality: Allows employees to submit, track, and resolve service requests.

(c) Value: Streamlines issue reporting and resolution, improving organizational efficiency.

(6) Leave Management

(a) Purpose: Manages employee leave requests and balances.

(b) Functionality: Provides a system for employees to apply for leave and for managers to approve or reject requests.

(c) Value: Simplifies leave management, ensuring accurate tracking of leave balances and approvals.

(7) Payslip Repository

(a) Purpose: Stores and provides access to employee payslips.

(b) Functionality: Allows employees to view and download their payslips.

(c) Value: Enhances transparency and accessibility of payroll information for employees.

(8) Employee Management System

(a) Purpose: Manages detailed employee information and records.

(b) Functionality: Includes features for adding, updating, and deleting employee records.

(c) Value: Centralizes employee data management, ensuring accurate and comprehensive employee information.

(9) Compensation Management System

(a) Purpose: Manages employee compensation details.

(b) Functionality: Allows for the input and update of compensation data, including salaries, bonuses, and benefits.

(c) Value: Ensures accurate and up-to-date compensation information, supporting payroll processing and financial planning.

(10) Employee List Report

(a) Purpose: Generates a report of all employees.

(b) Functionality: Provides a detailed list of employee data that can be exported or printed.

(c) Value: Facilitates quick access to comprehensive employee information for HR and management purposes.

(11) Payroll Report

(a) Purpose: Generates detailed payroll reports.

(b) Functionality: Includes information on employee earnings, deductions, and net pay for a given period.

(c) Value: Supports payroll processing, compliance, and financial reporting.

(12) Payroll Summary Report

(a) Purpose: Summarizes payroll data for a specified period.

(b) Functionality: Provides aggregated data on total earnings, deductions, and net pay for the organization.

(c) Value: Assists in high-level payroll analysis and decision-making.

(13) Compensation List Report

(a) Purpose: Generates a report of employee compensation details.

(b) Functionality: Includes data on salaries, bonuses, and other compensation components.

(c) Value: Supports HR and financial analysis by providing detailed compensation information.

3. Target Users and Their Roles

The MotorPH OneSuite Payroll System caters to a variety of users within your organization, each with distinct needs and functionalities:

a) Employees

Employees will benefit from secure self-service options. They can access their payslips electronically, view pay history, and manage basic personal information.

b) HR Department

The HR department will utilize the system for centralized employee data management, leave and absence administration, and tickets request handling. They will have access to features for managing new hires, terminations, and employee record updates.

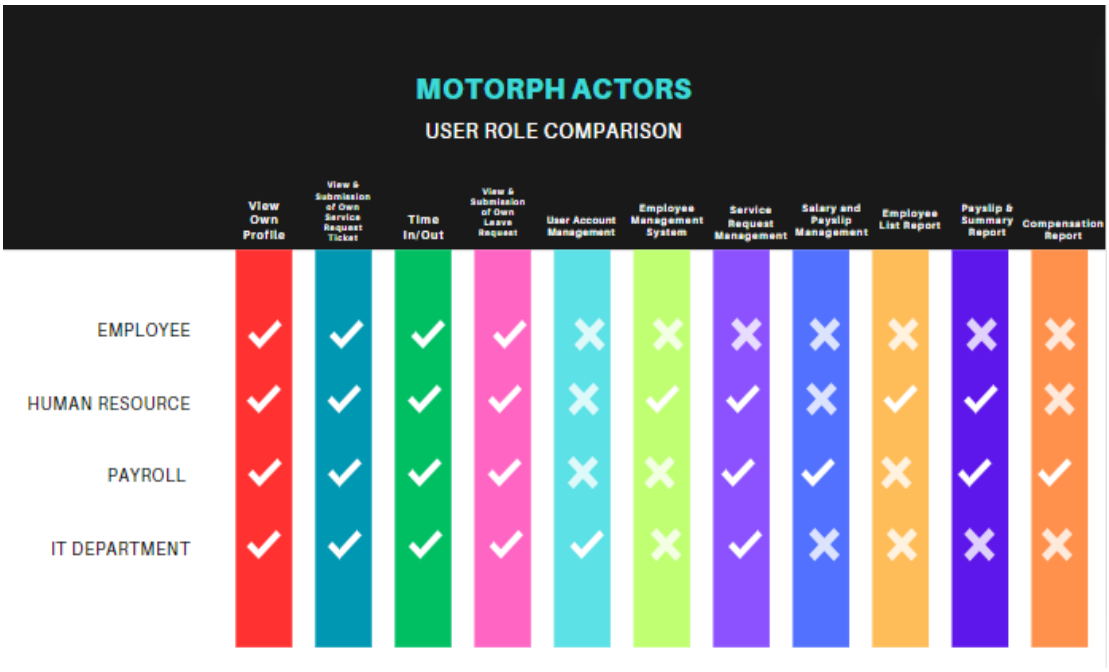
c) Payroll Department

Payroll department will leverage the system for core payroll functionalities such as salary calculations, deductions management, withholding tax processing, and payslip generation. They will be responsible for ensuring accurate and timely payroll processing

d) IT Department

IT personnel will be responsible for system administration, and user access management. They will ensure system security, user authentication, and potentially manage data backups and recovery procedures.

MOTORPH ACTOR COMPARISON



4. Navigating the User Guide

a) Open the Initial URL:

- Open your preferred web browser.
- In the address bar, type or paste the following URL: https://motorph-onesuite.my.canva.site/about
- This will take you to the initial page of the user guide hosted on Canva.

b) Click on "Learn More":

- Navigate to the section of the page where the "Learn More" link is located.
- Click on the "Learn More" link.

c) Access the Secondary URL:

- Upon clicking the "Learn More" link, the browser will redirect you to a new URL: https://winsace.github.io/motorph/.
- This URL hosts the detailed user guide for MotorPH.

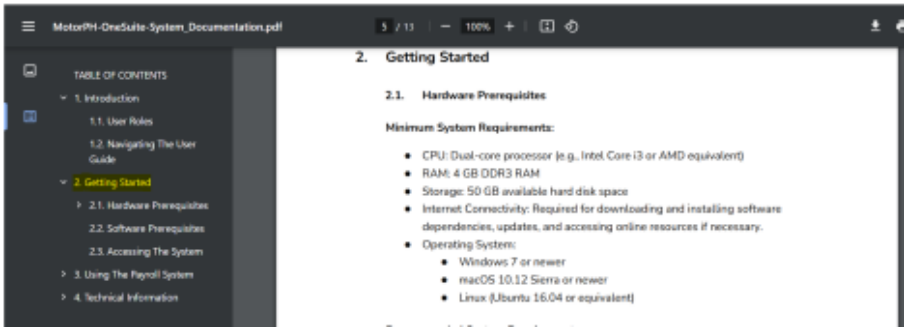
d) Utilize the PDF Viewer for Navigation:

- The provided link directs you to an online PDF viewer that displays the user guide document.
- The PDF viewer is equipped with bookmark functionality for easy

navigation through different sections of the user guide.

- You can navigate through the document using the provided bookmarks for efficient browsing and reference.

Example: Navigating using bookmarks



II. GETTING STARTED

1. Hardware Prerequisites

a) Minimum System Requirements

- CPU: Dual-core processor (e.g., Intel Core i3 or AMD equivalent)
- RAM: 4 GB DDR3 RAM
- Storage: 50 GB available hard disk space
- Internet Connectivity: Required for downloading and installing software dependencies, updates, and accessing online resources if necessary.
- Operating System:
    - Windows 7 or newer
    - macOS 10.12 Sierra or newer
    - Linux (Ubuntu 16.04 or equivalent)

b) Recommended System Requirements:

- CPU: Quad-core processor (e.g., Intel Core i5 or AMD equivalent)
- RAM: 8 GB DDR4 RAM
- Storage: 100 GB available hard disk space (SSD recommended for better performance)
- Internet Connectivity: Required for optimal performance, including downloading updates, accessing online resources, and community support.
- Operating System:
    - Windows 10 or newer
    - macOS 10.14 Mojave or newer
    - Linux (Ubuntu 20.04 LTS or equivalent)

2. Software Prerequisites

(1) Visual Studio Code:

- Description: Visual Studio Code is a source code editor developed by Microsoft for Windows, Linux, and macOS.
- Version: Ensure you have the latest stable version installed.
- Download Link: Visual Studio Code

(2) Node.js:

- Description: Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine. It allows you to run JavaScript on the server side.
- Version: Ensure you have the latest LTS (Long Term Support) version installed.
- Download Link: Node.js

(3) Nodemon:

- Description: Nodemon is a utility that monitors for any changes in your source code and automatically restarts your server.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install -g nodemon
```

(4) Express:

- Description: Express is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications.
- Installation: After Node.js is installed, you can install Express in your project by running the following command in your terminal within your project directory:

```
npm install express
```

(5) MySQL Community Server & MySQL Workbench

- Description: MySQL Community Server is a freely downloadable version of the world's most popular open-source database that is supported by an active community of open-source developers and enthusiasts.
- MySQL Workbench: MySQL Workbench provides data modeling, SQL development, and comprehensive administration tools for server configuration, user administration, backup, and much more.

(6) Cors

- Description: Cross-Origin Resource Sharing middleware for Express.js.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install cors
```

(7) Mysql2

- Description: MySQL client for Node.js with focus on performance. It supports prepared statements, connection pooling, transactions, and more.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install mysql2
```

(8) Dotenv

- Description: Dotenv is a zero-dependency module that loads environment variables from a .env file into process.env.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install dotenv
```

(9) Sequelize

- Description: Sequelize is a promise-based Node.js ORM for Postgres, MySQL, MariaDB, SQLite, and Microsoft SQL Server.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install sequelize
```

(10) PDFKit

- Description: PDFKit is a PDF generation library for Node.js that makes it easy to create and manipulate PDF documents.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install pdfkit
```

(11) CSV-writer

- Description: A CSV serializer for Node.js.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install csv-writer
```

(12) CSV-parser

- Description: A streaming CSV parser that aims for maximum speed and minimal memory usage.
- Installation: After Node.js is installed, run the following command in your terminal:

```
npm install csv-parser
```

(13) Internet Browser

- Description: Any modern internet browser such as Chrome, Safari, Edge, Firefox, etc.
- Version: Ensure you have the latest stable version installed.
- Download Links:
    - **Google Chrome**
    - **Safari**
    - **Microsoft Edge**
    - **Mozilla Firefox**

3. Accessing the System

(1) Launch Visual Studio Code:

(a) Locate and open the Visual Studio Code application on your computer. You can typically find it in your applications folder (on macOS) or in the Start menu (on Windows).

(2) Download the project folder:

(a) Visit the GitHub repository link: https://github.com/winsace/OOP/

(b) Navigate to the src folder by clicking on it.

(c) Once you're inside the src folder, you should see the server.js file along with other files and folders.

(d) To download the entire src folder, click on the green "Code" button located towards the right side of the screen.

(e) In the dropdown menu, click on "Download ZIP". This will download the entire repository, including the src folder and its contents, as a ZIP file to your computer.

(f) After the ZIP file is downloaded, locate it in your downloads folder or the directory where your browser saves downloads. Extract the contents of the ZIP file. Inside, you'll find the src folder containing the necessary files, including server.js.

(3) Open the project folder:

(a) Within Visual Studio Code, navigate to the folder containing your Node.js project files. You can either use the "File" menu to open a folder or simply drag and drop the folder into Visual Studio Code's interface.

(4) Run the Node.js application with Nodemon:

(a) Open the integrated terminal in Visual Studio Code. You can do this by selecting "Terminal" from the top menu and choosing “New Terminal".

(b) Navigate to the project directory within the terminal. You can use the cd command followed by the path to your project directory.

(c) Instead of using the node command to run your Node.js application, use nodemon followed by the main script name.

Example:

```
nodemon server.js
```

(d) Replace server.js with the name of your main Node.js script file.

(e) Nodemon will start the application and monitor for any changes in your code. Whenever you save changes to the code, Nodemon will automatically restart the application, making the development process smoother.

(5) Server Launch Confirmation:

(a) After running the command, you'll see the output message “Server running at http://localhost:3000" in the terminal, indicating that the server is up and running.

(b) You can then access the application by opening a web browser and navigating to http://localhost:3000. This URL corresponds to your local machine and the port on which the server is running. For example:

```
[nodemon] starting `node server.js`
Server running at http://localhost:3000
```

(6) Accessing the Application via Web Browser:

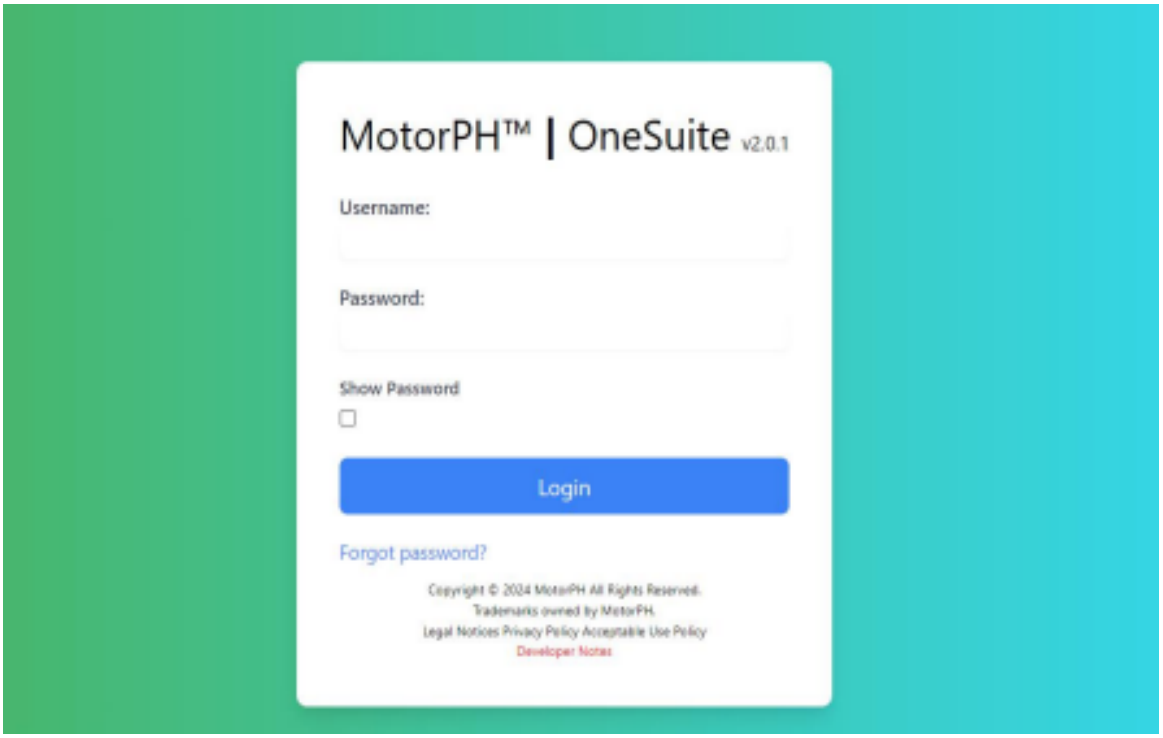
(a) Open any web browser on your computer.

(b) In the address bar of the web browser, type http://localhost:3000 and press Enter.

(c) This will open the application in the web browser, as the server is running locally on port 3000.

(d) You should now see the homepage or landing page of MotorPH OneSuite, as served by the Node.js server.

MotorPH OneSuite Landing Page



III. USING THE PAYROLL SYSTEM

For a detailed walkthrough of the payroll system, please watch the instructional video: AOOP Group 3.mp4

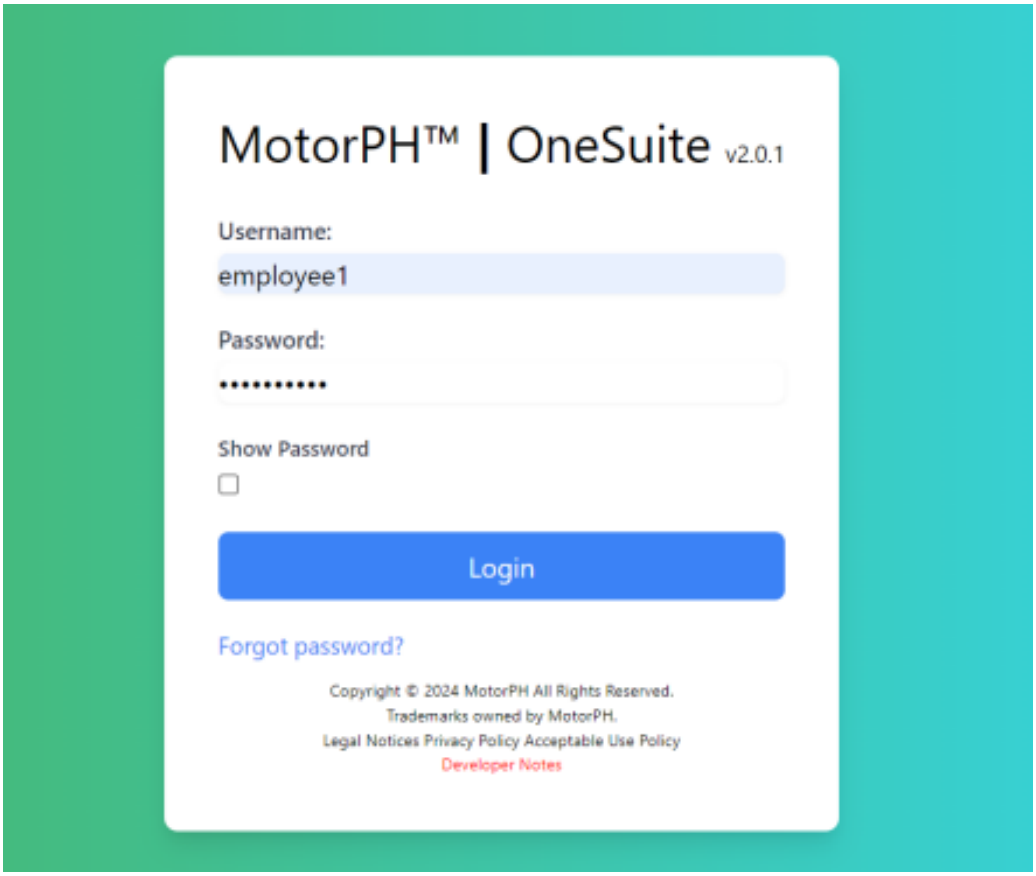
1. Secure Login Procedures

Logging into the MotorPH OneSuite involves a secure authentication process requiring a username and password. Once provided, the system verifies the credentials and checks the user's role to determine the appropriate dashboard access based on Role-Based Access Control (RBAC) principles.

a) Username and Password:

(1) Users are required to enter their unique username and password into the designated login fields provided by the MotorPH OneSuite login interface.

MotorPH OneSuite Landing Page

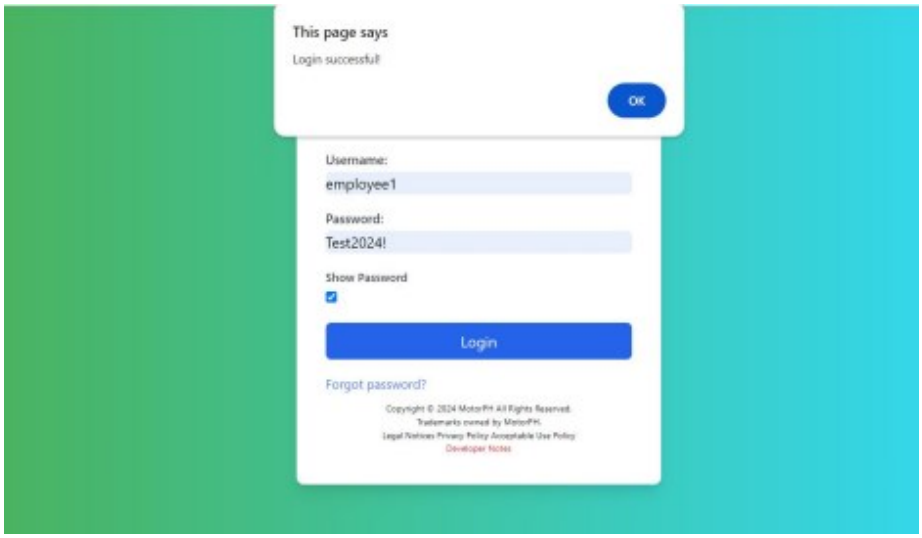


b) Credential Verification:

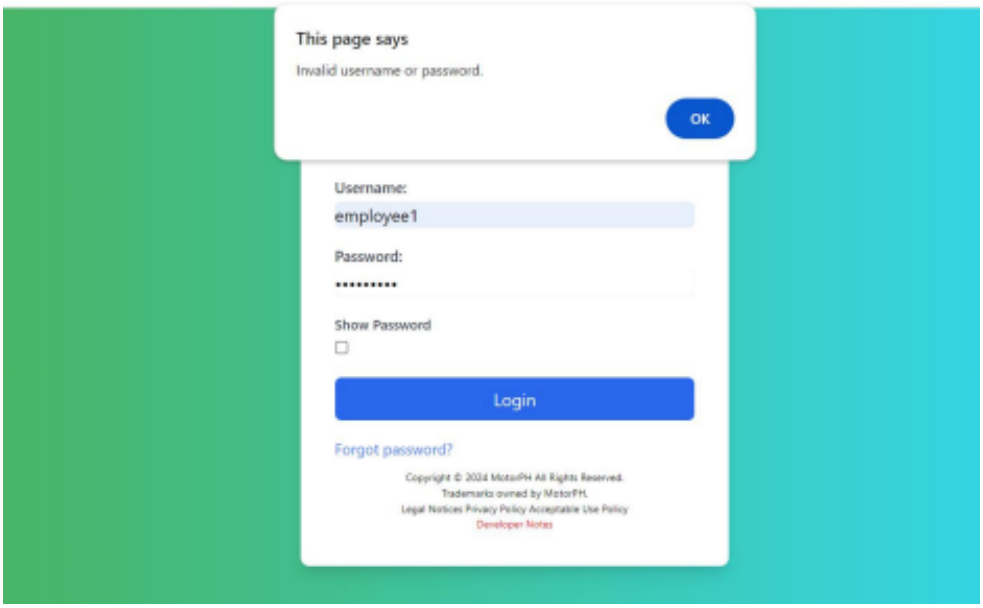
(1) Upon submission, the system authenticates the provided username and password against the stored credentials in the database.

(2) Verification involves hashing and comparing the password hash stored in the database with the hash generated from the provided password.

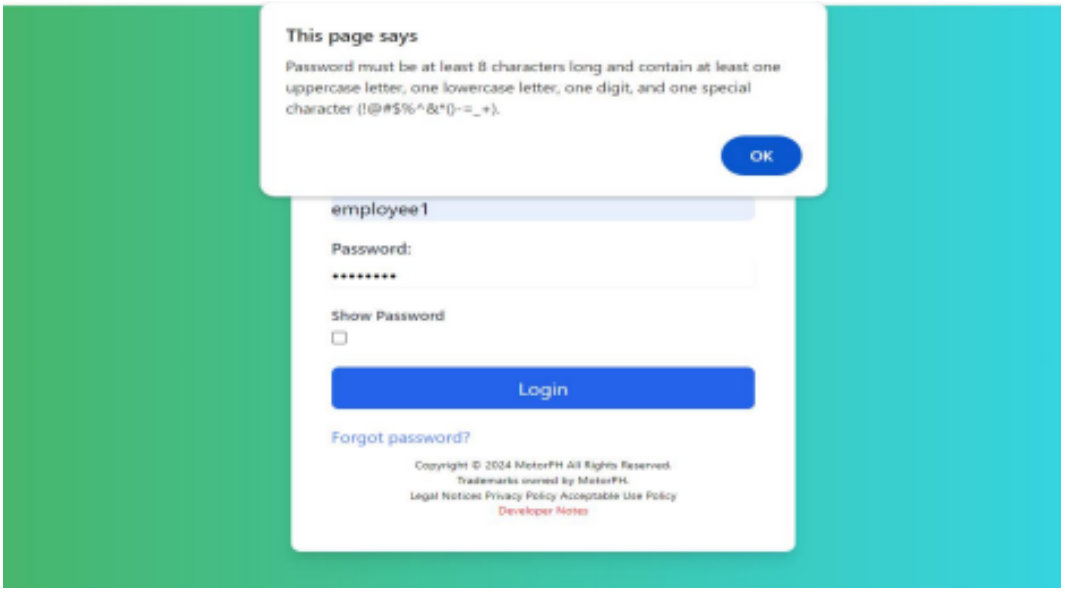
Example 1: Successful Login



Example 2: Incorrect Credentials



Example 3: Strict Password Requirement



c) Role-Based Access Control (RBAC):

(1) After successful credential verification, the system retrieves the user's role information associated with the provided username.

(2) RBAC principles dictate that each user is assigned one or more roles, each with a predefined set of permissions and access rights.

d) Dashboard Routing:

(1) Based on the user's role, the system determines the appropriate dashboard to route the user to upon login.

(2) Different roles may have access to different features, functionalities, or sections within the application.

(3) For example, administrators might have access to administrative controls and settings, while regular users may have access limited to specific functionalities relevant to their role.

Role-based access control routing

2. Dashboard Section

The Dashboard section of MotorPH OneSuite serves as the central hub for users to access role-specific information, tools, and functionalities based on their assigned roles, which may include Employee, HR Admin, Payroll Admin, or IT Admin. The Dashboard is designed to provide users with a customized and intuitive interface that optimizes their workflow and enhances productivity. Key components of the Dashboard include:

a) Role-Based Access:

(1) The Dashboard is customized to display components and features relevant to the user's assigned role.

(2) Depending on their role (e.g., Employee, HR Admin, Payroll Admin, or IT Admin), users will see different sidebar components and functionalities tailored to their specific responsibilities and permissions.

b) Sidebar Navigation:

(1) The sidebar navigation menu presents users with a list of accessible modules, features, and tools based on their role. Sidebar components may include options for managing employee data, processing payroll, accessing HR-related functions, user access management, and more.

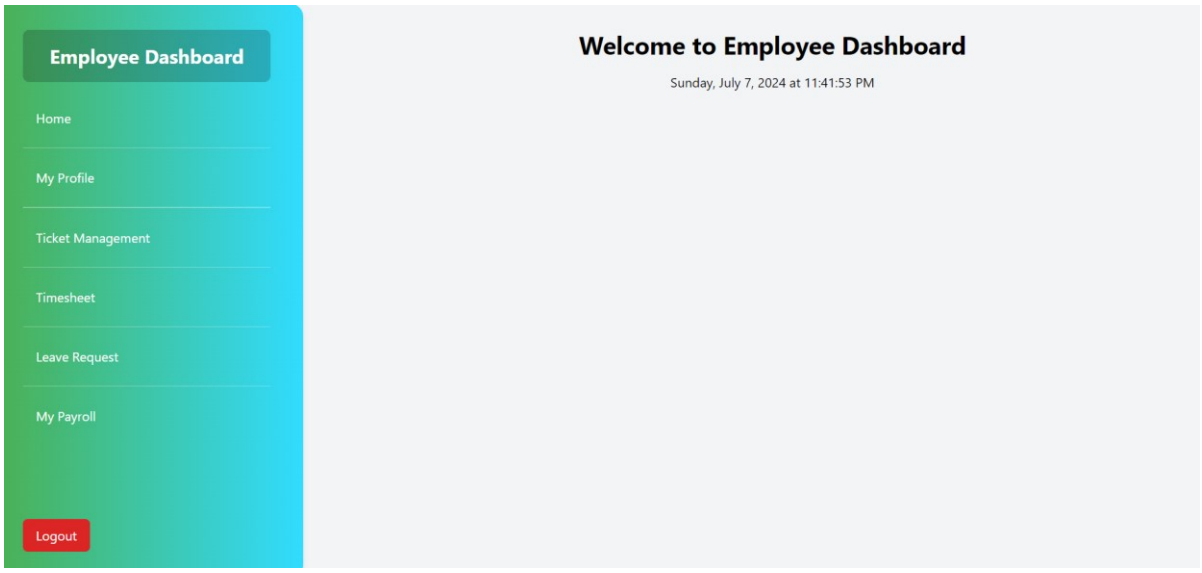
(2) Users can easily navigate between different sections of the application by clicking on the corresponding sidebar items.

c) Logout Button:

(1) A prominent logout button is provided on the Dashboard to allow users to securely sign out of their account.

(2) Clicking the logout button ensures that the user's session is terminated, preventing unauthorized access to their account and maintaining data security.

Example: Employee Dashboard



3. Home Section

The Home section serves as the welcome page on the dashboard of MotorPH OneSuite. Upon logging in, users are directed to this section, where they are greeted with relevant information and updates. The primary purpose of the Home section is to provide users with a centralized hub for accessing essential data and functionalities, as well as facilitating quick navigation to other sections of the application.

a) Welcome Message:

(1) The Home section features a welcoming message or greeting to acknowledge the user's login and provide a personalized experience.

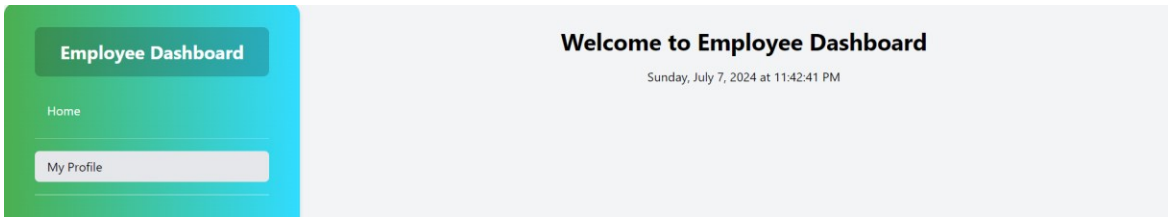
(2) The message may include the user's name or role, reinforcing a sense of recognition and engagement.

b) Current Date and Time:

(1) A prominent display of the current date and time is featured on the Home page.

(2) This real-time information ensures users are informed of the latest updates and can plan their activities accordingly.

Example: Home Section



4. My Profile Section

In MotorPH OneSuite, the "My Profile" feature enables employees to access and view their personal information, preferences, and settings within the system. This functionality empowers employees to manage their own profile details and ensures accuracy and privacy of their personal data.

a) Accessing My Profile:

(1) Upon logging in to the Dashboard, employees can navigate to the "My Profile" section, typically located in the user menu or sidebar navigation.

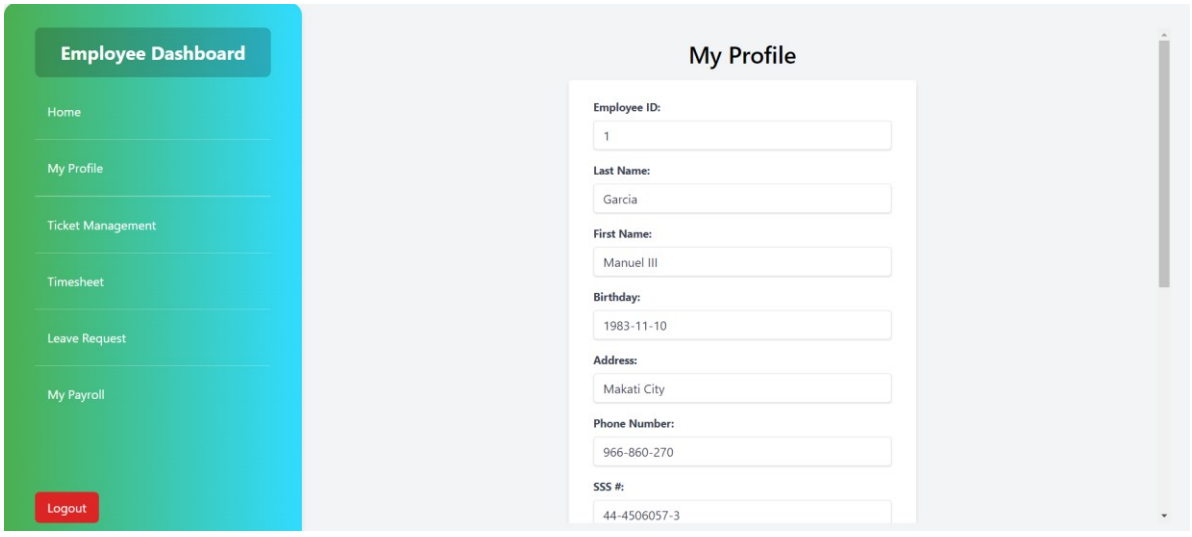
(2) Clicking on the "My Profile" option directs users to a dedicated page or modal window displaying their profile information.

b) Personal Information:

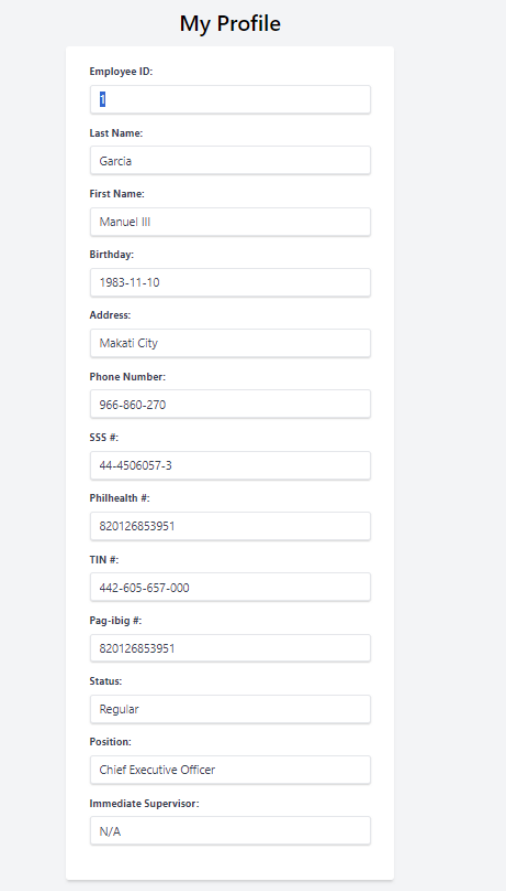
(1) The profile page presents an overview of the employee's personal information, such as name, contact details, job title, department, and employee ID.

(2) Users can review and update their contact information, including email addresses, phone numbers, and mailing addresses, as needed.

Example: My Profile



Example: My Profile | Employee Information



5. Employee Management Section (For HR Administrator Only)

The Employe Management section within MotorPH OneSuite is specifically designed for HR Administrators, providing them with comprehensive tools for managing employee data throughout the entire employee lifecycle. This section encompasses CRUD (Create, Read, Update, Delete) functionalities, allowing HR Administrators to efficiently handle employee-related tasks with ease.

a) Employee Listing:

(1) HR Administrators are presented with a comprehensive listing of all employees within the organization.

(2) The listing typically includes essential employee details such as name, employee ID, department, position, contact information, and employment status.

b) Create New Employee:

(1) HR Administrators can add new employees to the system by filling out a structured form.

(2) The form collects relevant employee information including personal details, employment information, contact details, and any other required data fields.

(3) Upon submission, the newly created employee record is added to the system database.

c) View Employee Details:

(1) HR Administrators can view detailed information about individual employees by accessing their respective profiles.

(2) The employee profile displays all relevant information collected during the employee onboarding process, allowing HR Administrators to review employment history, performance evaluations, training records, and more.

d) Update Employee Information:

(1) HR Administrators have the capability to update employee information as needed to reflect changes in employment status, contact details, job roles, or other relevant data.

(2) The system provides editable fields within the employee profile interface, enabling HR Administrators to make necessary updates with ease.

e) Delete Employee Record

(1) HR Administrators are empowered to remove employee records from the system when necessary.

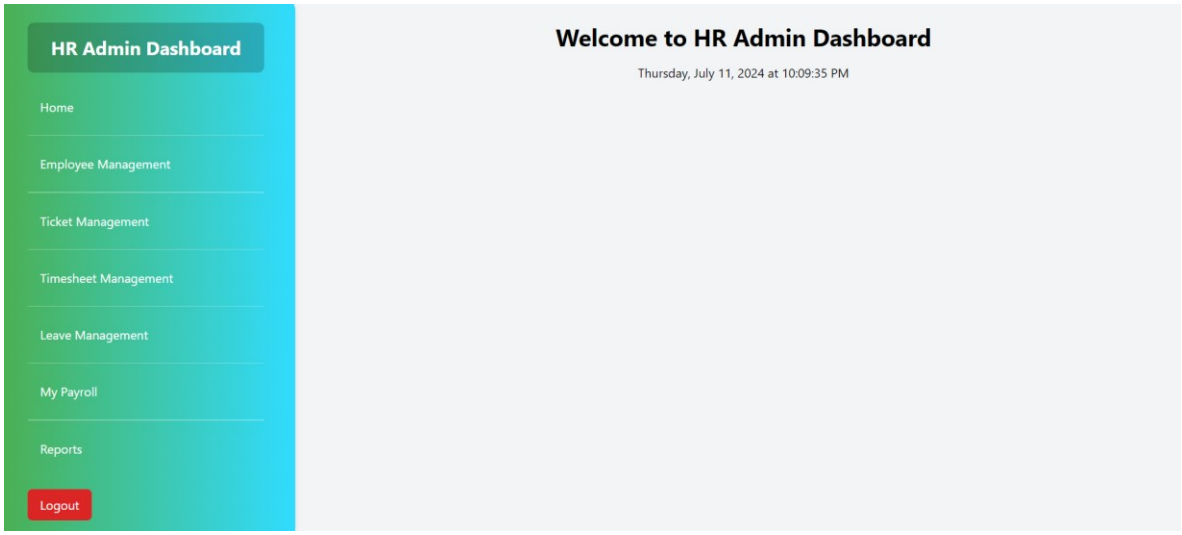
(2) Deleting an employee record ensures that their information is no longer accessible within the system, helping maintain data accuracy and compliance with data protection regulations.

f) Search and Filter Functionality

(1) The Employee Management section offers robust search and filter functionalities, allowing HR Administrators to quickly locate specific employees based on criteria such as name, department, or employment status.

(2) Advanced filtering options enable HR Administrators to refine search results and narrow down employee listings as needed.

Example: Employee Management



6. Ticket Management Section

The Ticket Management section in MotorPH OneSuite provides employees with a centralized platform to view, submit, and manage support tickets for various issues, inquiries, or requests. This feature streamlines communication between employees and support teams, ensuring timely resolution of issues and efficient handling of service requests. Key functionalities of the Ticket Management section include:

a) Viewing Own Tickets:

(1) Employees can access a dashboard or list view displaying all tickets associated with their account.

(2) The list may include tickets they have submitted as well as tickets assigned to them for resolution or follow-up.

b) Ticket Submission:

(1) Employees can submit new tickets by filling out a ticket request form within the system.

(2) The form typically includes fields for specifying the nature of the issue, providing a detailed description, selecting the priority level, and attaching relevant files or screenshots if needed.

c) Ticket Categorization and Prioritization:

(1) Tickets are categorized based on the type of request or issue, such as technical support, facilities maintenance, or administrative assistance.

(2) Employees can prioritize their tickets based on urgency or impact, helping support teams allocate resources effectively and address critical issues promptly.

d) Status Tracking and Updates:

(1) Employees can track the status of their submitted tickets in real time, from initial submission to resolution.

(2) The system provides updates and notifications at each stage of the ticket lifecycle, keeping employees informed of progress and any actions required on their part.

e) Communication and Collaboration:

(1) The Ticket Management section facilitates communication between employees and support teams through integrated messaging features.

(2) Employees can exchange messages with support agents, provide additional information or clarification, and receive updates on ticket progress directly within the system.

f) Escalation and Assignment:

(1) Support teams have the ability to escalate tickets to higher-level technicians or managers, when necessary, based on predefined escalation rules or severity levels.

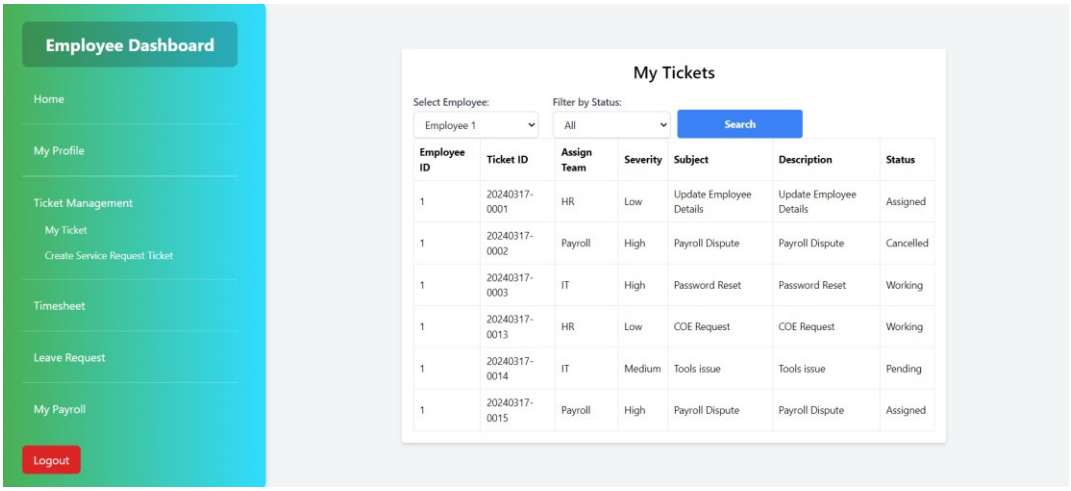
(2) Tickets are assigned to specific support agents or teams responsible for resolution, ensuring accountability and timely handling of requests.

g) Resolution and Closure:

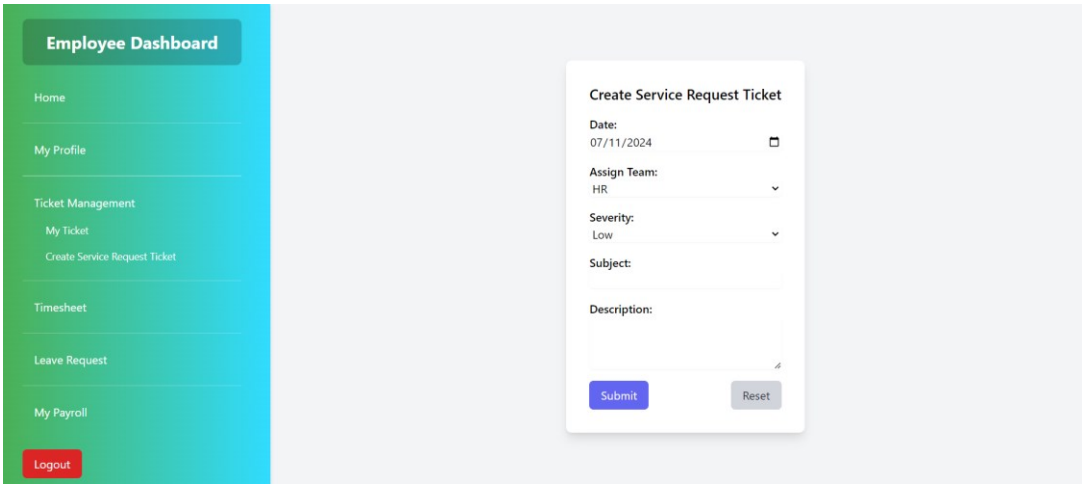
(1) Once an issue is resolved, support agents update the ticket status accordingly and provide details of the resolution.

(2) Employees are notified of ticket closure and may have the opportunity to provide feedback or confirm that the issue has been satisfactorily resolved.

Example: My Ticket



Example: Create Ticket



7. Action Service Request Section (For HR, Payroll, and IT Administrator Only)

The Action Service Request section in MotorPH OneSuite is specifically designed for HR, Payroll, and IT teams to efficiently manage and action service requests submitted by employees. This section serves as a centralized platform for team members to review, process, and resolve service tickets within their respective domains. Key features and functionalities of the Action Service Request section include:

a) Ticket Review and Prioritization:

(1) HR, Payroll, and IT teams have access to a dashboard or list view displaying all service requests assigned to their respective departments.

(2) Tickets are prioritized based on urgency, impact, or predefined service level agreements (SLAs), enabling teams to focus on high-priority issues first.

b) Search Functionality:

(1) The section features robust search functionality that allows team members to quickly locate specific tickets based on various criteria, such as ticket ID, requester name, or issue category.

(2) Advanced search filters may also be available to narrow down search results and streamline ticket retrieval.

c) Ticket Assignment and Ownership:

(1) Service requests are assigned to individual team members or designated groups within the HR, Payroll, or IT departments.

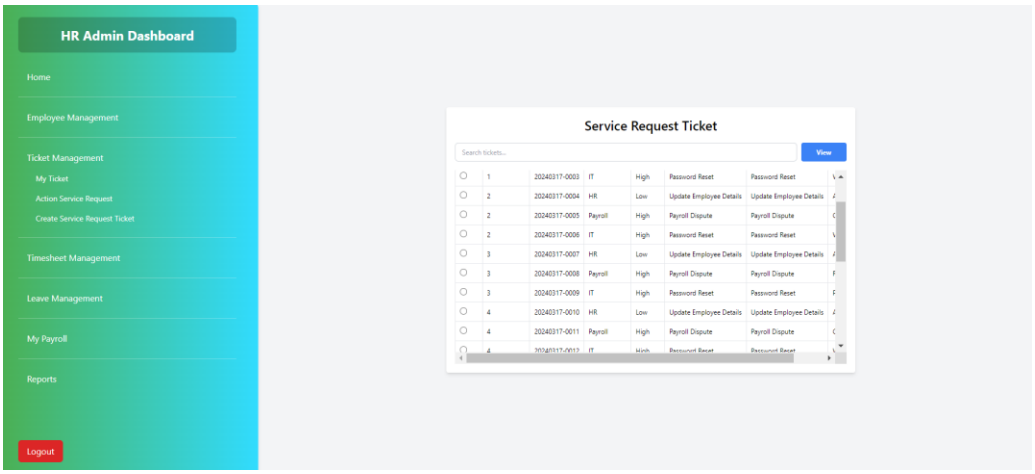
(2) Assigned team members take ownership of tickets and are responsible for managing the resolution process from start to finish

d) Ticket Details and Context:

(1) Team members can access comprehensive details and context information associated with each service request, including the requester's contact information, ticket description, attachments, and any previous communication history.

(2) Having access to relevant context facilitates informed decision making and ensures accurate problem diagnosis and resolution.

Example: Action Service Request



8. User Access Management (For IT Administrator Only)

The User Access Management section in MotorPH OneSuite is designed specifically for IT Administrators to manage user accounts, permissions, and access rights within the system. This functionality empowers IT Administrators to oversee user access levels, enforce security policies, and ensure compliance with organizational requirements. Key features of the User Access Management section include:

a) User Account Creation and Deactivation:

(1) IT Administrators can create new user accounts for employees or other system users as needed.

(2) Additionally, they have the authority to deactivate or suspend user accounts when necessary, such as in cases of employee termination or account misuse.

b) Permission Assignment and Role Management:

(1) IT Administrators assign specific permissions and roles to user accounts based on their job responsibilities and access requirements.

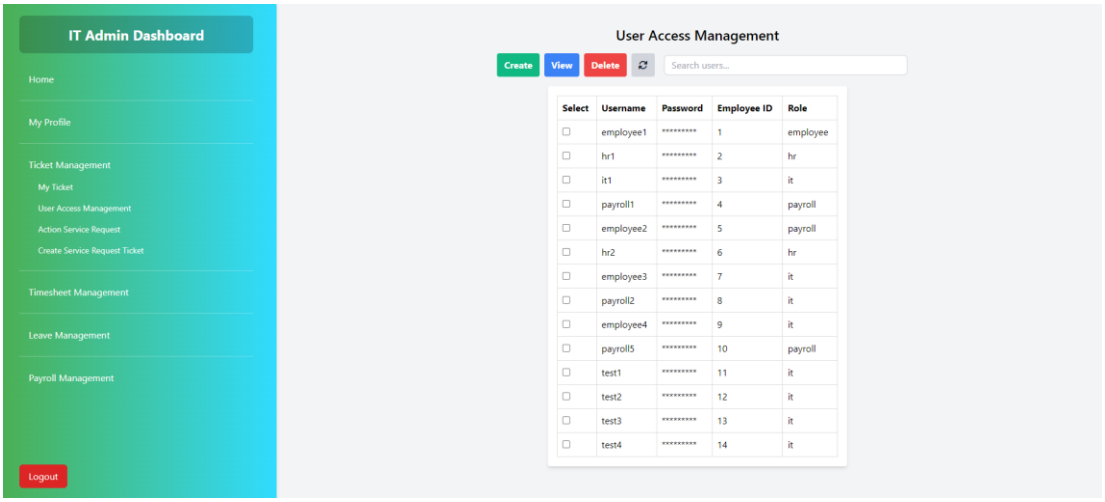
(2) Roles define a set of permissions and access rights, ensuring that users only have access to the functionalities and data relevant to their roles.

c) Access Control Policies:

(1) IT Administrators establish access control policies to govern user access to sensitive data and critical system functionalities.

(2) Policies may include restrictions on data access, password complexity requirements, session management rules, and other security measures.

User Access Management



9. Timesheet Management Section | Time Entry

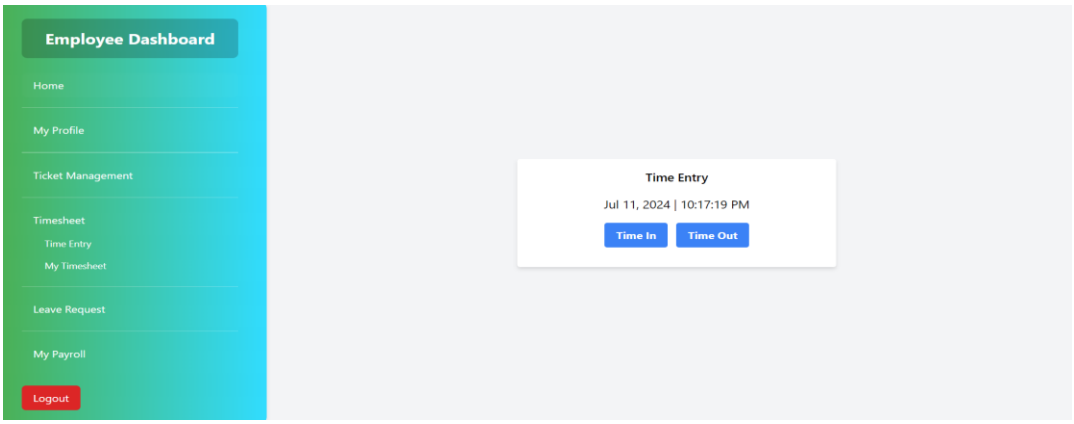
Time and attendance tracking in MotorPH OneSuite facilitates efficient monitoring and management of employee work hours, attendance records, and related data. The system provides comprehensive features to streamline timekeeping processes and ensure accurate recording of attendance information.

a) Employee Time-In/Time-Out:

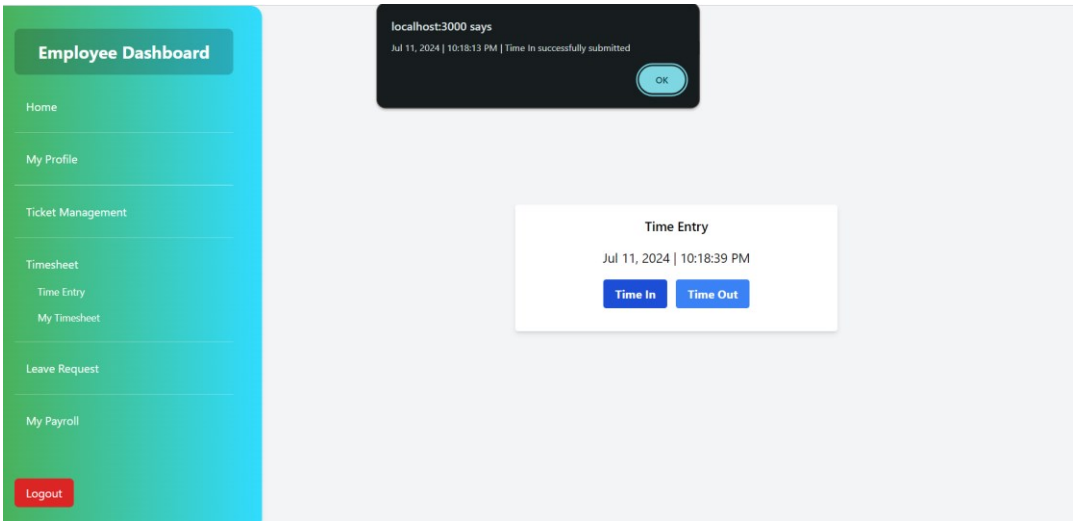
(1) Employees utilize designated features within the application to time in and time out of their shifts or work hours.

(2) Time-in and time-out actions are timestamped and recorded in the system to track the start and end times of each work session.

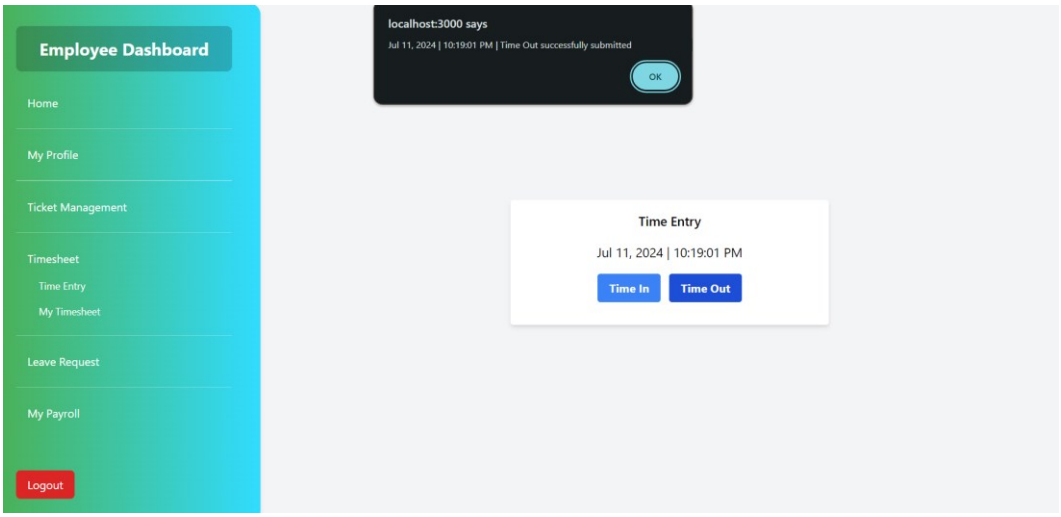
Example: Time Entry



Example 1: Time In



Example 2: Time Out



10. Timesheet Management Section | My Timesheet

The Timesheet Management section in MotorPH OneSuite offers employees a convenient platform to access and review their own timesheet records, providing visibility into their work hours, attendance, and related data. This section enables employees to monitor their time worked, track attendance patterns, and ensure accuracy in recording their working hours. Key features of the Timesheet Management section include:

a) Personalized Timesheet View:

(1) Employees can access a personalized dashboard or interface displaying their individual timesheet records for specific time periods, such as daily, weekly, or monthly views.

(2) Timesheet data is presented in a clear and organized format, showing details such as date, start time, end time, total hours worked, and any breaks taken.

b) Date Range Selection

(1) The section allows employees to select custom date ranges to view timesheet records for specific time periods, enabling them to track their work hours over different timeframes.

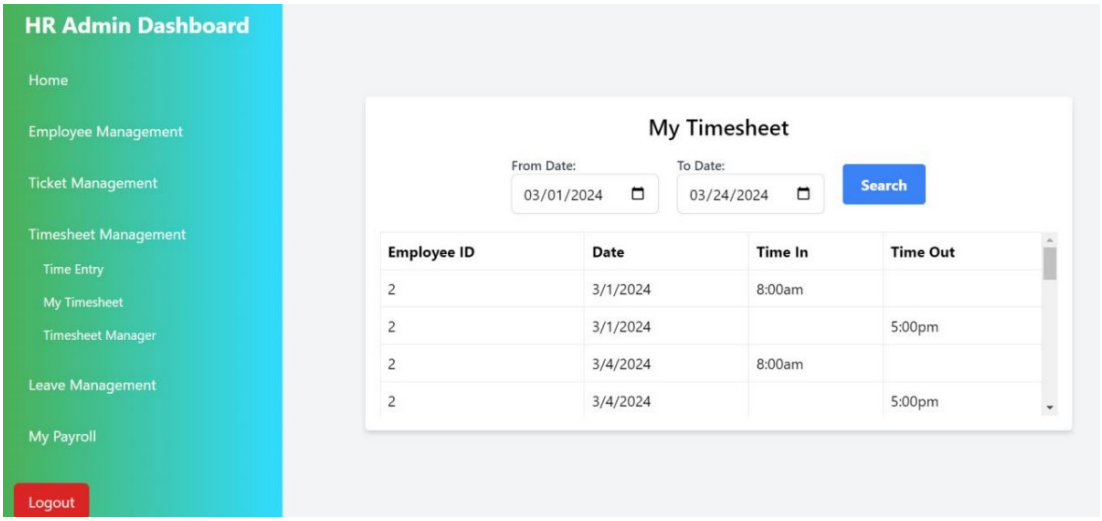
(2) Date range selectors or filters may be provided to facilitate easy navigation and retrieval of timesheet data for desired time periods.

c) Attendance Tracking:

(1) Timesheet records include information on employee attendance, including clock-in and clock-out times, as well as any deviations such as late arrivals or early departures.

(2) Employees can review their attendance history and identify any discrepancies or irregularities in their work hours.

Example: My Timesheet



11. Timesheet Management Section | Timesheet Manager (HR Only)

The Timesheet Management section in MotorPH OneSuite provides HR Administrators with comprehensive tools to oversee and manage timesheet records for all employees within the organization. This functionality enables HR Admins to track employee work hours, monitor attendance patterns, and ensure compliance with labor regulations. Key features of the Timesheet Management section include:

a) Centralized Timesheet Repository:

(1) The section serves as a centralized repository for storing and accessing timesheet records for all employees across departments and locations.

(2) HR Administrators can view and manage timesheets for individual employees or groups of employees within the organization.

b) Employee Timesheet Records:

(1) HR Administrators have access to detailed timesheet records for each employee, displaying information such as date, time in/out, total hours worked, breaks, and any additional notes or comments.

(2) Timesheet records may be organized by pay period, week, or month for ease of tracking and analysis.

c) Viewing and Editing Permissions:

(1) HR Administrators have the authority to view and edit timesheet records for all employees within the organization.

(2) They can review timesheet entries, make corrections or adjustments as needed, and ensure accuracy and completeness of the records.

d) Timesheet Approval Workflow:

(1) The section may include an approval workflow feature that allows HR Administrators to review and approve timesheets submitted by employees.

(2) HR Administrators can verify timesheet accuracy, validate hours worked against scheduled shifts, and approve timesheets for payroll processing.

e) Attendance Tracking and Reporting:

(1) HR Administrators can track attendance patterns, identify trends, and generate reports on employee punctuality, absenteeism, and overtime hours.

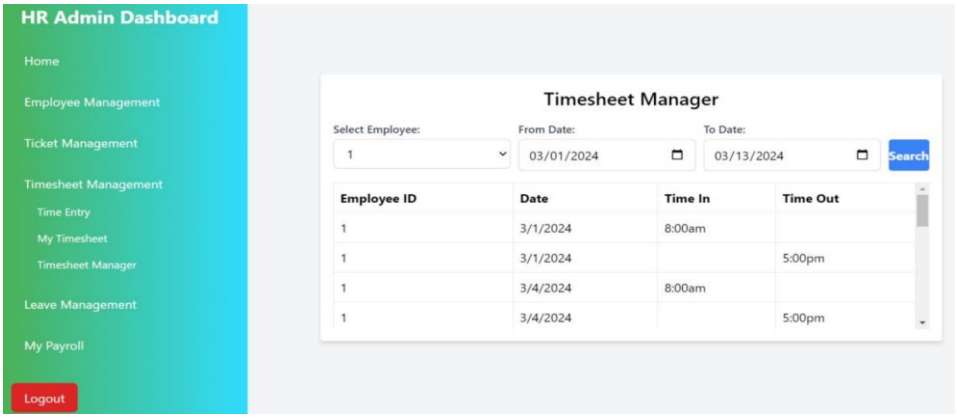
(2) Reporting functionalities provide insights into workforce productivity, resource allocation, and compliance with labor regulations.

f) Integration with Payroll Systems:

(1) Timesheet data can be seamlessly integrated with payroll systems to facilitate accurate payroll processing and ensure employees are compensated correctly for hours worked.

(2) Integration eliminates manual data entry errors and streamlines the payroll workflow, saving time and reducing administrative overhead.

Example: Timesheet Manager



12. Leave Request Section

The Leave Request section in MotorPH OneSuite empowers employees to manage their leave requests efficiently while providing HR administrators with the tools to review, approve, and track employee leave across the organization. This feature streamlines the leave management process, ensures compliance with company policies, and promotes transparency in scheduling. Key functionalities of the Leave Request section include:

a) Viewing Leave Request Record and Status:

(1) Employees can view their submitted leave requests along with the status of each request.

(2) The section provides employees with visibility into the details of their leave requests, including requested dates, leave type, and the approval status (e.g., pending, approved, rejected).

b) Leave Request Submission:

(1) Employees can submit new leave requests directly through the system by selecting the type of leave, specifying the dates, and providing a reason or explanation for the request.

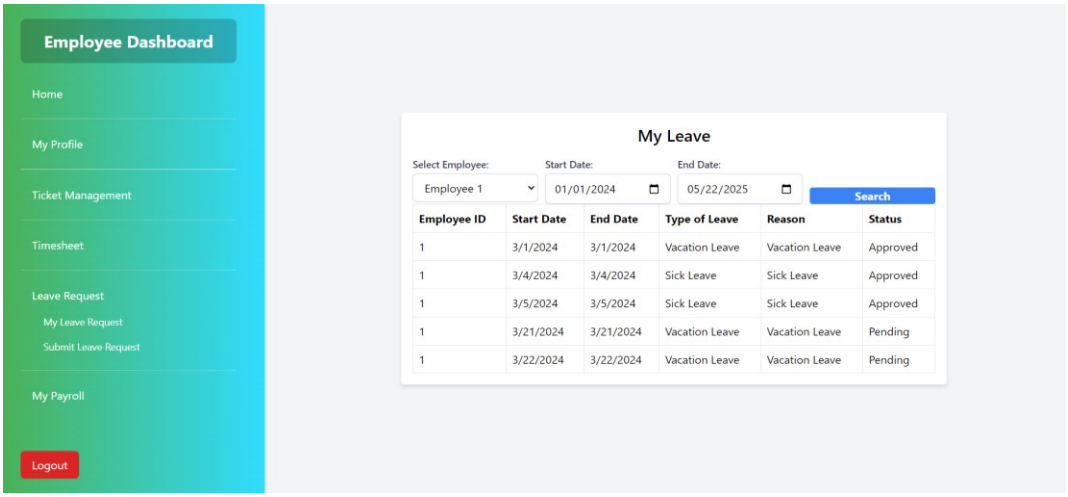
(2) The leave request form may include additional fields for attaching supporting documents or notes, depending on company policies.

c) Leave Calendar:

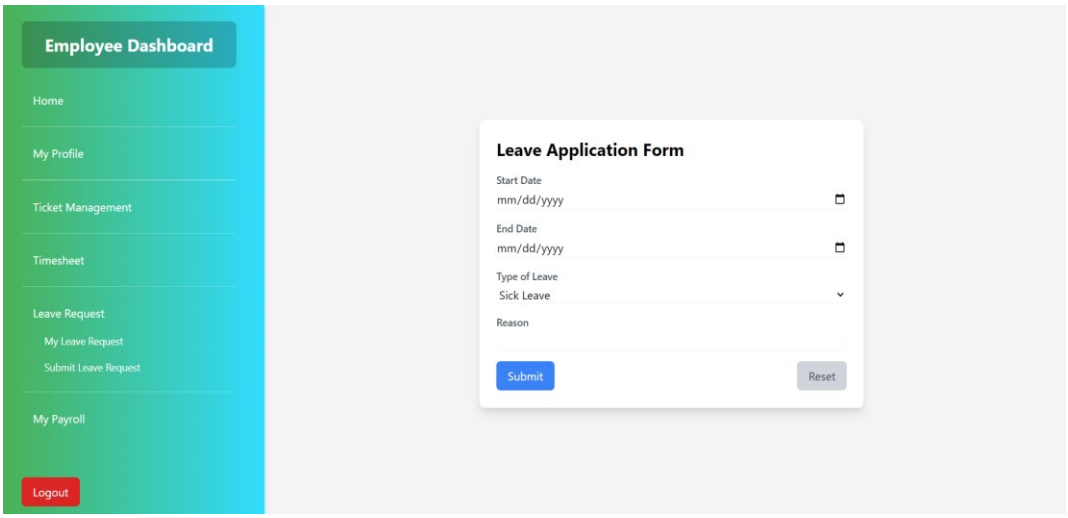
(1) The Leave Request section features a visual leave calendar that displays approved leave requests, holidays, and other scheduled absences for individual employees and teams.

(2) The calendar provides a clear overview of leave availability and helps prevent scheduling conflicts.

Example: My Leave Request



Example: Submit Leave Request



13. Leave Request Section | Leave Manager (HR Only)

The Leave Request section in MotorPH OneSuite provides HR administrators with exclusive access to oversee and manage all leave requests submitted by employees throughout the organization. This dedicated functionality enables HR administrators to maintain control over leave management processes, ensure compliance with company policies, and facilitate efficient approval workflows. Key features of the Leave Request section for HR administrators include:

a) Comprehensive Leave Request Overview:

(1) HR administrators can access a comprehensive overview of all leave requests submitted by employees, including details such as requested dates, leave types, and the current status of each request.

(2) The section provides a centralized view of leave requests across departments, allowing HR administrators to effectively manage leave allocation and scheduling.

b) Approval Workflow Management:

(1) HR administrators are responsible for reviewing and approving leave requests submitted by employees.

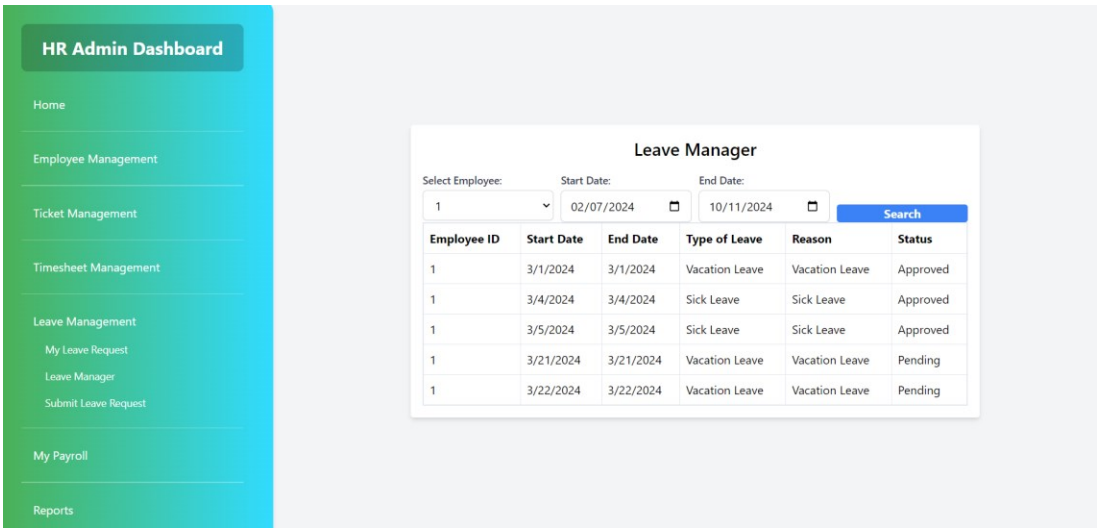
(2) The section offers robust approval workflow management capabilities, allowing HR administrators to efficiently process leave requests, verify leave balances, and ensure compliance with company policies.

c) Leave Request Status Tracking:

(1) HR administrators can track the status of leave requests in real time, from initial submission to final approval or rejection.

(2) The section provides visibility into the entire leave request lifecycle, enabling HR administrators to monitor progress, address pending requests, and communicate with employees as needed.

Example: Leave Manager



14. Payslip Management Section

The Payslip Management section in MotorPH OneSuite serves as a centralized repository for storing and accessing employee payslips. This feature facilitates efficient management of payroll-related documents and provides employees with convenient access to their earnings and deductions information. Key functionalities of the Payslip Management section include:

a) Payslip Repository:

(1) The section stores electronic copies of employee payslips in a secure and organized manner.

(2) Payslips are categorized by pay period, employee name, or other relevant criteria for easy retrieval.

b) Viewing Payslips:

(1) Employees can access their payslips through the system to view detailed information about their earnings, deductions, taxes, and net pay for each pay period.

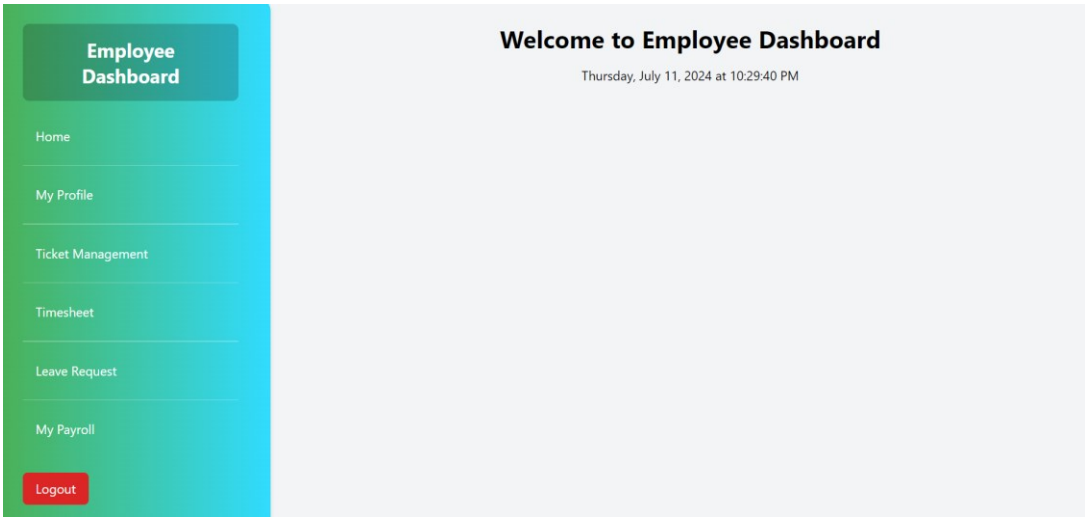
(2) Payslips are presented in a user-friendly format that is easy to understand and navigate.

c) Download and Printing:

(1) Employees have the option to download or print their payslips directly from the system for their records or future reference.

(2) This feature provides employees with flexibility in accessing and managing their payslip documents.

Example: My Payslip



15. Payslip Management Section | Payslip Generator (Payroll Admin Only)

The Payslip Management section in MotorPH OneSuite provides Payroll Administrators with a dedicated toolset to generate accurate and comprehensive payslips for all employees within the organization. This feature streamlines the payroll process by automating salary calculations, deductions, taxes, and net pay, ensuring consistency and compliance with regulatory requirements. Key functionalities of the Payslip Generator include:

a) Automated Salary Calculation:

(1) The Payslip Generator automatically calculates employee salaries based on predefined wage rates, work hours, overtime, and other compensation factors.

(2) Salary calculations are performed accurately and consistently, reducing the risk of manual errors and discrepancies.

b) Deduction Management:

(1) Payroll Administrators can configure and manage various deductions, such as taxes, insurance premiums, retirement contributions, and loan repayments.

(2) Deductions are automatically applied to employee salaries based on established rules and regulations.

c) Tax Calculation and Withholding:

(1) The Payslip Generator incorporates tax tables and algorithms to calculate employee taxes accurately based on applicable tax rates, allowances, and exemptions.

(2) Tax withholdings are calculated automatically and reflected on the employee's payslip, ensuring compliance with tax laws and regulations.

d) Net Pay Calculation:

(1) The system calculates the employee's net pay by subtracting deductions, taxes, and other withholdings from the gross salary.

(2) Net pay is displayed prominently on the employee's payslip, providing a clear summary of take-home earnings after deductions.

Example: Payslip

MotorPH

7 Jupiter Avenue cor. F. Sandoval Jr., Bagong Nayon, Quezon City
Phone: (028) 911-5071 / (028) 911-5072 / (028) 911-5073
Email: corporate@motorph.com

EMPLOYEE PAYSLIP

PAYSLIP NO	1	PERIOD START DATE	2024-04-15
EMPLOYEE ID	10001	PERIOD END DATE	2024-05-15
EMPLOYEE NAME	Garcia, Manuel III	EMPLOYEE POSITION/DEPARTMENT	Chief Executive Officer/Executive

EARNINGS	
Monthly Rate	90000.00
Hourly Rate	535.71
Days Worked	21
Overtime	.00
GROSS INCOME	**89999.28**

BENEFITS	
Rice Subsidy	1500.00
Phone Allowance	2000.00
Clothing Allowance	1000.00
TOTAL	**4500.00**

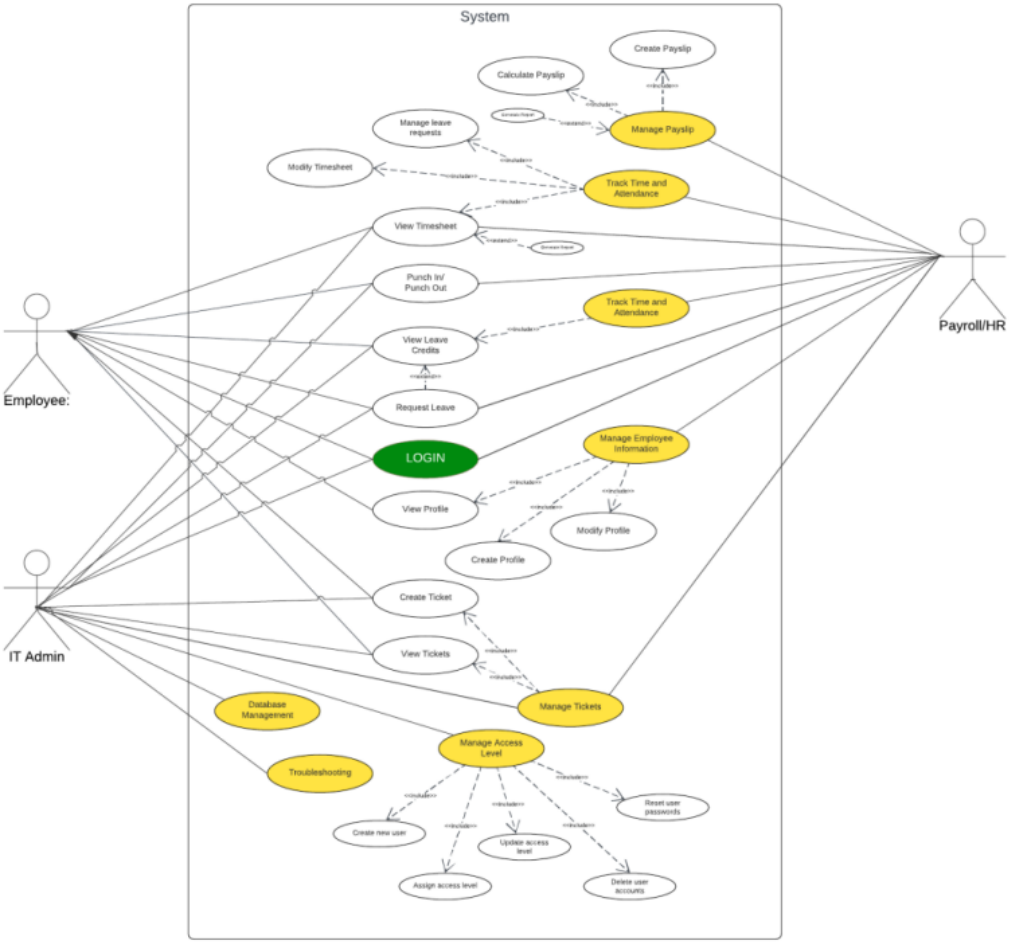
DEDUCTIONS	
Social Security System	1125.00
Philhealth	1800.00
Pag-Ibig	1800.00
Withholding Tax	16415.40
TOTAL DEDUCTIONS	**21140.40**

SUMMARY	
Gross Income	89999.28
Benefits	4500.00
Deductions	21140.40
TAKE HOME PAY	**73358.88**

IV. TECHNICAL INFORMATION

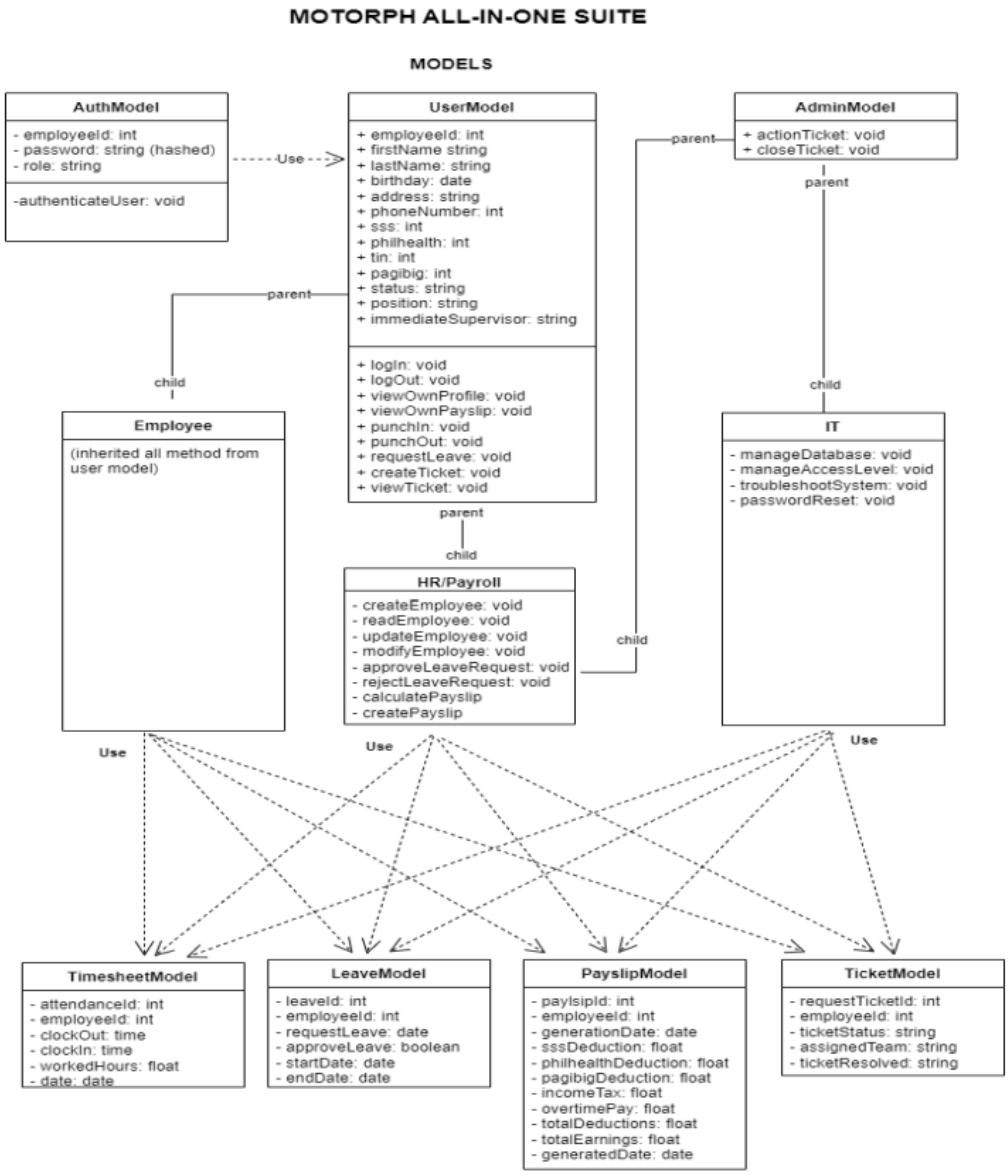
1. Use Case Diagram

The use case diagram offers a skeletal structure for a payroll system built using object-oriented principles. It identifies key classes like Employee, Payroll/HR, IT Admin, and Login. The diagram outlines inheritance for the Employee class and an aggregation relationship between Login and Employee. This indicates that Employee objects can exist independent of login functionality, while Login objects likely reference specific Employee data. Overall, the diagram provides a starting point for understanding potential object interactions within the payroll system design.



2. Class Diagram

The class diagram provides a foundational understanding of how object-oriented principles can be applied to design a payroll system. It highlights the core classes involved in employee data management, timekeeping, leave requests, payslip generation, payroll processing, system administration, and login functionalities. The inheritance and associations provide insights into potential collaborations between these classes to achieve the system's functionalities.



3. Testing

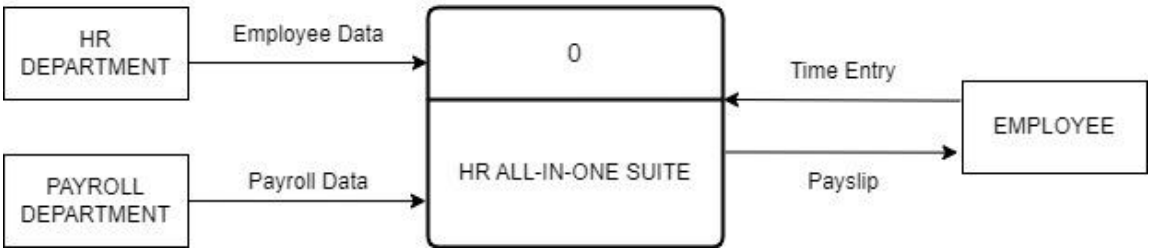
Project Description	The Payroll Management System is an integrated software solution designed to automate and streamline payroll processes within an organization. The system is aimed at managing employee information, tracking time and attendance, and handling all aspects of payroll calculations, including the generation of payslips. By automating these processes, the system ensures accuracy, reduces administrative workload, and provides employees with timely access to their payroll information.
Test Scenarios	1. SYSTEM OPERATION 2. MYSQL CONNECTIVITY 3. PORTAL ACCESSIBILITY 4. AUTHENTICATION AND AUTHORIZATION WITH RBAC BASED ON ROLE 5. LOGOUT FUNCTIONALITY 6. SHARED FUNCTIONALITY 7. SHARED FUNCTION (HR, IT, PAYROLL) - TICKET MANAGEMENT 8. IT ROLE - USER ACCESS MANAGEMENT 9. HR ROLE - EMPLOYEE MANAGEMENT 10. HR ROLE - ATTENDANCE MANAGEMENT 11. HR ROLE - REPORTING 12. PAYROLL ROLE - COMPENSATION MANAGEMENT 13. PAYROLL ROLE - PAYSLIP CALCULATOR 14. PAYROLL ROLE - REPORTING

For detailed testing information, please refer to the TEST CASE DOCUMENT.

V. USER INTERACTION AND WORKFLOW

1. LEVEL 0 DFD

LEVEL0 | Context Diagram

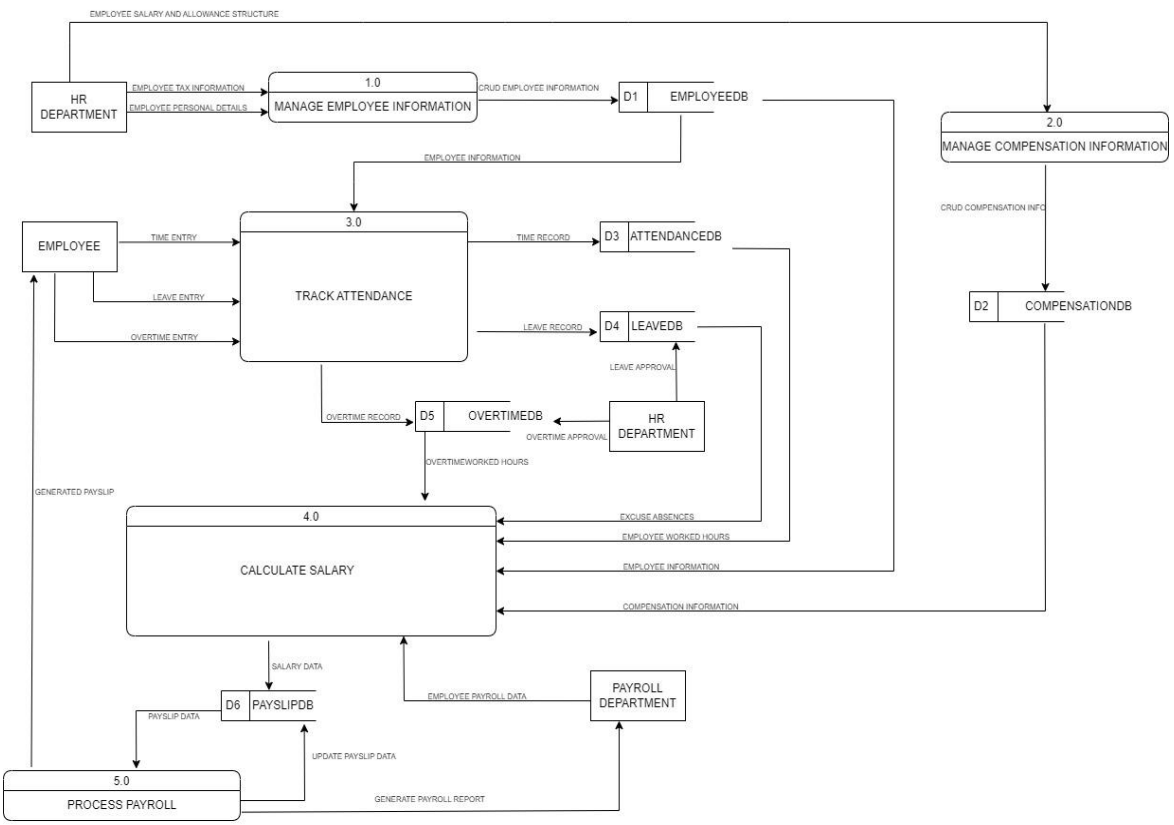


In the level 0 data flow diagram of the MotorPH Payroll Management System, the HR department initiates the process by sending employee data to the payroll department. The payroll department then receives the employee data and stores it in a database. Time entry data is then captured from the Employee, possibly through a timekeeping system and sent to the payroll department. Once the Payroll department receives the time entry data, they can calculate payroll data, such as gross pay, taxes withheld, and net pay. The payroll department then sends the payslip data to the HR department's database, which is integrated with the payroll.

Overall, the level 0 data flow diagram provides a basic overview of the data flow between the HR Department and the Payroll Department in the MotorPH Payroll Management System.

2. LEVEL 1 DFD

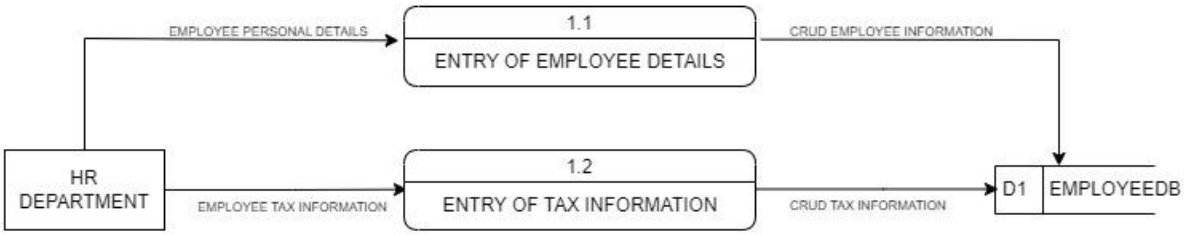
LEVEL 1 | This DFD level 1 provides more detailed view of the data flow within the payroll system based on level 0.



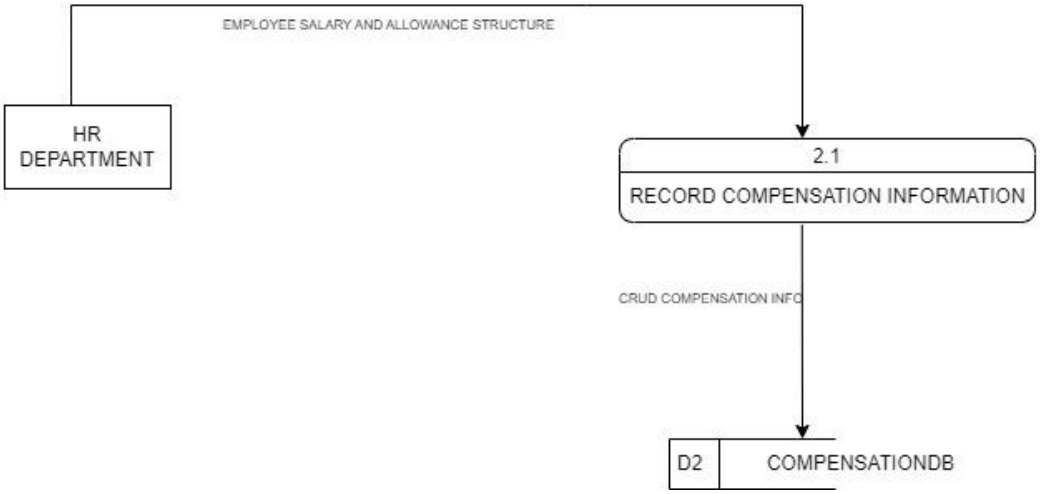
In the level 1 data flow diagram of the MotorPH Payroll Management System, the HR department provides employee information (D1) to the system, which includes data like employee ID, names, addresses. This data is stored in EmployeeDB. The department manages compensation information (3.0) which could include salary, allowances, and deductions. This data is stored in the CompensationDB. Attendance data (D3) is tracked by the system and this data is stored in the AttendanceDB. Leave and absence data (D4) is also tracked by the system. This data could include sick leave, vacation leave, and personal leave. It's stored in the LeaveDB. Overtime entries (D5) are captured by the system and stored in the OvertimeDB. All this data is used to calculate employee salary (6.0). The salary data is then used to process payroll (7.0). This also involves generating payslips and sending them to the HR department.

3. LEVEL 2 DFD

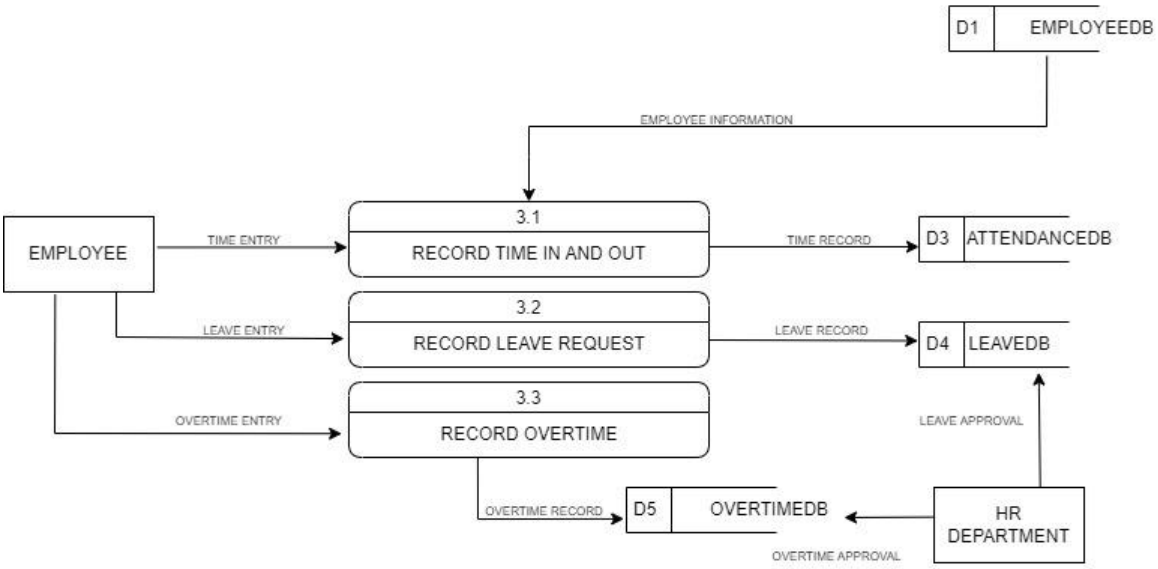
LEVEL 2 | This DFD level 2 focuses on the "Manage Employee Information" process from level 1.



LEVEL 2 | This DFD level 2 focuses on the "Manage Employee Salary Information" process from level 1.



LEVEL 2 | This DFD level 2 focuses on the "Track Attendance" process from level 1.



VI. FUNCTIONAL REQUIREMENTS

1. System Operation

Ensure reliable and efficient operation of the system

2. MySQL Connectivity

Establish and maintain connectivity with the MySQL database for data storage and retrieval.

3. Portal Accessibility

Provide easy access to the portal for all users with appropriate interface and user experience design.

4. Authentication and Authorization with RBAC (Role-Based Access Control)

Implement authentication and authorization mechanisms based on user roles to ensure secure access control.

5. Logout Functionality

Allow users to securely log out of the system.

6. Shared Functionality

Provide common features accessible to multiple roles within the system.

7. Shared Function (HR, IT, Payroll) - Ticket Management

Implement a ticket management system for HR, IT, and Payroll departments to handle requests and issues efficiently.

8. IT Role - User Access Management

Allow IT personnel to manage user access and permissions within the system.

9. HR Role - Employee Management

Enable HR personnel to add, edit, and delete employee records, capturing necessary employee details.

10. HR Role - Attendance Management

Allow HR personnel to manage employee attendance records.

11. HR Role – Reporting

Provide reporting tools for HR personnel to generate reports on various HR metrics and activities.

12. Payroll Role - Compensation Management

Enable payroll personnel to manage and calculate employee compensation, including salaries, benefits, and deductions.

13. Payroll Role - Payslip Calculator

Provide a calculator for generating payslips, detailing monthly earnings, deductions, and net pay.

14. Payroll Role – Reporting

Provide reporting tools for payroll personnel to generate reports on payroll expenses, tax liabilities, and employee earnings.

VII. NON-FUNCTIONAL REQUIREMENTS

1. Security

a) Implement robust security measures to safeguard sensitive payroll data.

b) Utilize strong encryption protocols for data transmission and storage to prevent unauthorized access.

c) Implement strict password modal and role-based access control (RBAC) to ensure that only authorized personnel can access sensitive information.

d) Regularly update and patch the system to protect against vulnerabilities and cyber threats.

2. Scalability

a) Design the system to accommodate the company's growth and evolving payroll needs.

b) Ensure the architecture supports scaling up for an increasing number of employees and transactions without compromising performance.

c) Implement modular components that can be easily expanded or upgraded to meet future requirements.

3. Accuracy

a) Ensure precise and error-free salary calculations and tax deductions.

b) Implement thorough validation checks and automated reconciliation processes to maintain data integrity.

c) Regularly audit payroll calculations and processes to detect and correct any discrepancies promptly.

4. Efficiency

a) Automate manual payroll processes to reduce administrative workload and minimize errors.

b) Streamline workflows to enhance productivity and reduce processing times for payroll tasks.

c) Provide real-time processing and reporting capabilities to ensure timely payroll execution and data availability.

5. Compliance

a) Meet all legal and regulatory requirements related to payroll management.

b) Stay updated with changes in labor laws, tax regulations, and other relevant legislation to ensure ongoing compliance.

c) Maintain comprehensive records and audit trails to demonstrate compliance during inspections or audits.

d) Implement automated updates for tax rates and regulations to ensure continuous compliance without manual intervention.

VIII. PERFORMANCE, SECURITY & CONSTRAINTS

1. Performance

a) **Concurrent User Limit:** The system can handle a maximum of 100 to 150 concurrent users at any given time. This limit ensures optimal performance and prevents system overload.

b) **Efficiency:** The application is designed to efficiently manage and process user requests, ensuring quick response times and minimal latency.

c) **Scalability:** Future includes scaling the system to accommodate a higher number of concurrent users and increased data volumes, utilizing database indexing and optimization techniques.

2. Security

a) **Environment Variables Management:** The system uses dotenv to manage environment variables, ensuring sensitive information (such as database credentials) is not hard-coded in the application.

b) **Password Protection:** User passwords are securely hashed and stored, and the system includes a password portal for password management.

c) **Logout Handling:** After logout, the system disables the back button functionality to prevent unauthorized access to previous sessions.

d) **Data Integrity:** Utilizes Primary Keys (PK) and Foreign Keys (FK) to maintain relational integrity and ensure data consistency.

e) **Encapsulation:** Implements encapsulation principles to protect data from unauthorized access and modification, ensuring that only authorized parts of the application can access specific data.

3. Constraints

a) **Uniqueness Constraints:** The system enforces uniqueness constraints to prevent duplicate entries in the database. Unique keys ensure that each record is distinct and identifiable.

b) **Not Null Constraints:** Critical fields in the database are marked as NOT NULL to ensure that essential data is always provided and recorded accurately.

c) **Variable Constraints:** Variables are defined with appropriate data types and length constraints to ensure data validity and efficient storage.

d) **Normalization:** The database design follows normalization principles to reduce redundancy and improve data integrity. This includes decomposing large tables into smaller, more manageable ones without losing data relationships.

e) **Cardinality Constraints:** Cardinality constraints are applied to define the relationships between different data entities, ensuring the correct association between tables (e.g., one-to-many, many-to-many relationships).

By adhering to these performance, security, and constraint guidelines, the system aims to deliver a robust, secure, and efficient application that meets the users' needs while maintaining data integrity and preventing unauthorized access.

IX. GLOSSARY

API (Application Programming Interface): A set of definitions that allows applications to communicate with each other.

CRUD (Create, Read, Update, Delete): A set of basic operations used in database management to create, read, update, and delete data.

Data Flow Diagram: A graphical representation of how data flows through a system.

Deduction: An amount of money withheld from an employee's salary, such as for taxes or insurance.

Encryption: The process of transforming data into a scrambled form that can only be read by authorized users.

Employee Data Management: The process of collecting, storing, and managing information about employees.

Functional Requirements: The specific tasks that a system must be able to perform.

Hashing: A cryptographic process that transforms data into a fixed-length value.

Leave Request: A formal request by an employee for time off work.

MySQL: A popular open-source relational database management system.

Non-Functional Requirements: The qualities of a system, such as its performance, security, and usability.

Overtime: The time worked by an employee in excess of their regular working hours.

Password: A secret word or phrase used for user authentication.

Payslip: A document detailing an employee's earnings and deductions for a specific pay period.

Payroll Processing: The calculation of employee salaries and deductions, and the generation of payslips.

Payroll System: A software application designed to automate and manage an organization's payroll processes.

Primary Key: A unique identifier for a record in a database table.

RBAC (Role-Based Access Control): A security mechanism that restricts access to system resources based on a user's role.

Salary: The fixed regular payment that an employee receives for their work.

Security: The measures taken to protect a system from unauthorized access, use, disclosure, disruption, modification, or destruction.

System Administration: The management of the computer systems and software used by an organization.

Test Case: A set of instructions designed to test a specific functionality of a software application.

Time In/Time Out: Clocking in and out of work shifts using the designated app features.

Timesheet: A document or system that records the hours an employee works. (This can be replaced with the existing definition for "Timesheet Management Section")

User Access Management Section: A section for IT Administrators to create, deactivate, manage user accounts, and assign permissions (IT Admin Only).

Viewing Payslips: Accessing detailed information about earnings, deductions, taxes, and net pay for each pay period.

X. REFERENCES

Reference No.	Reference Document
1	Entity-Relationship Diagram
2	Data Dictionary
3	Schema Diagram
4	Walkthrough Video
5	Test Case Document