



Republic of the Philippines

NUEVA ECIJA UNIVERSITY OF SCIENCE AND TECHNOLOGY

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COLLEGE OF INFORMATION COMMUNICATION TECHNOLOGY

Preliminary Design Document Of Payroll Management System

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PROJECT OVERVIEW

The Payroll Management System Oversees the Distribution of employee salaries of the Client Company. Ensuring an easier and more efficient tracking, calculation and distribution of the company employee payroll.

System Objectives:

1. Enable the Finance and HR department to work with higher efficiency.
2. Keep track of employee salary, benefits, performance, and attendance.
3. Make more comprehensive, easy to understand and detailed salary reports.

System Scope:

The system covers, stores, and manages the payroll of all employees within the company, including satellite offices and branches.

System Benefits:

1. Storing of payroll data and records of receipts will be digitally, on/offline.
2. Retrieving of certain transactions, release of pay slip/s, proof of release will be easier.
3. Making financial reports, end of the month reports and conclusive reports will be easier and more efficient due to the system.
4. Finance and HR department would be able to manage and track every employee's performance, attendance, and salary more efficiently.

REQUIREMENTS SUMMARY

Functional Requirements

- Create and store employee account
- Generate monthly pay slip
- Remove account of inactive employee
- Summarize payroll activity when requested
- Display pay slip breakdown per employee

Non – Functional Requirements

- Handle a large amount of concurrent users
- Store data for long period of time

Conceptual Model

Refer to attached document.

Logical Design

Tables and Keys

1. Employees:
 - Primary Key: id
 - Foreign Key: department_id references department.id
 - Attributes: id, department_id, first_name, last_name
2. Departments
 - Primary Key: id
 - Foreign Key: manager_id references employees.id
 - Attributes: id, name, manager_id
3. Payrolls
 - Primary Key: id
 - Foreign Key: employee_id, references employees.id
 - Attributes: id, employee_id, pay_period_start, pay_period_end, gross_pay, net_pay, pay_date
4. Deductions
 - Primary Key: id
 - Foreign Key: payroll_id references payrolls.id
 - Attributes: id, payroll_id, type, amount
5. Attendance
 - Primary Key: id
 - Foreign Key: employee_id references employees.id
 - Attributes: id, employee_id, date, status, check_in, check_out

Relationships

- Employees belong to a Department; a department can have many employees.
- Departments may have a manager (an employee).
- Payrolls are generated for each employee.
- Deductions are linked to specific payroll records.
- Attendance is required per employee per day.

Normalization Results

(Refer to attached document)

Draft Data Dictionary

(Refer to attached document)

ASSUMPTIONS & RESTRAINTS

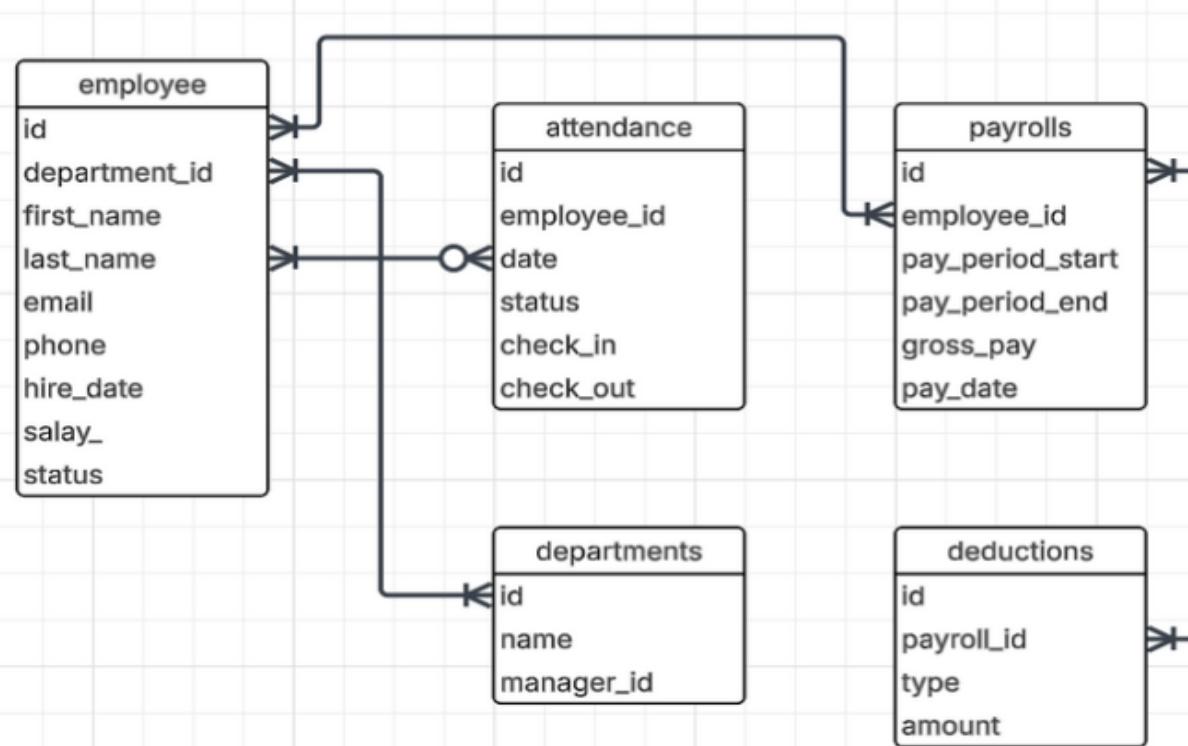
Technical restraints

- Servers are/may be inefficient and insufficient.
- Security may not be enough for more confidential financial reports.
- System may be accessed by people not part of the company.

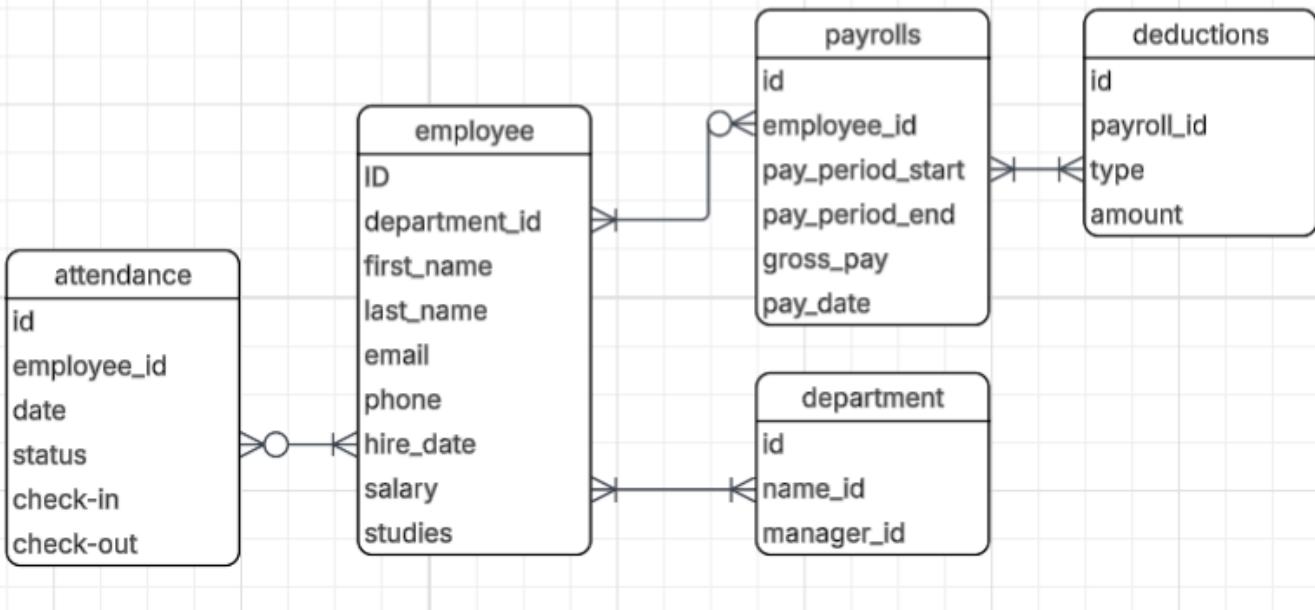
Financial Restraints

- Budget may be inefficient for the purchase of required servers to handle the expected amounts of users.
- Budget may not be enough to entice a qualified and talented cyber security personnel for the privacy of the more confidential data.

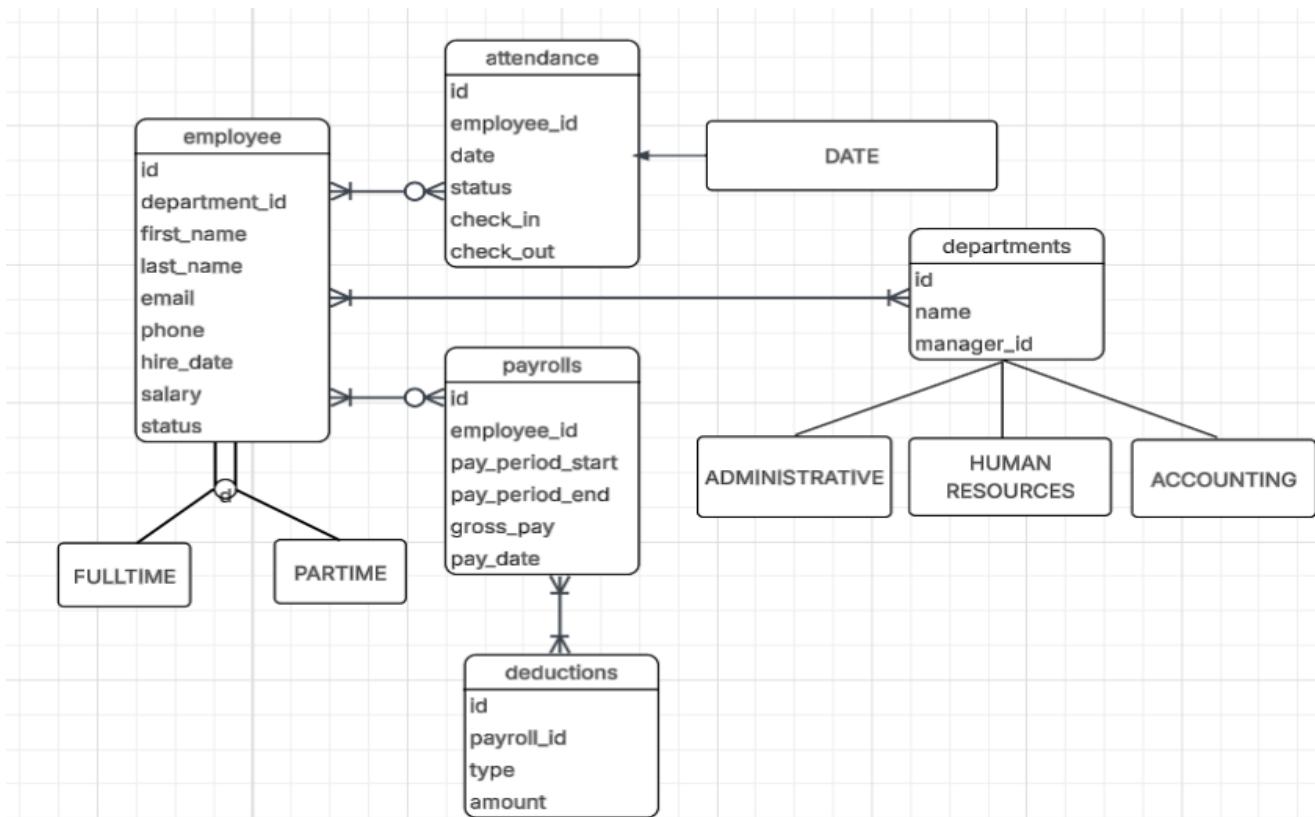
Entity Relationship Diagram (UNEDITED)



Entity Relationship Diagram



Enhance Entity Relationship Diagram (UNEDITED)



Enhance Entity Relationship Diagram

