# Employee management system

General overview

This project aims at working on an employee management system that will be aiding HR managers and department managers better facilitate the transactions they make. These transactions range from paying employees to creating and assigning tasks to employees.

It will also offer login services for employees so that they can view their information.

The Entity Diagram will look as follows:
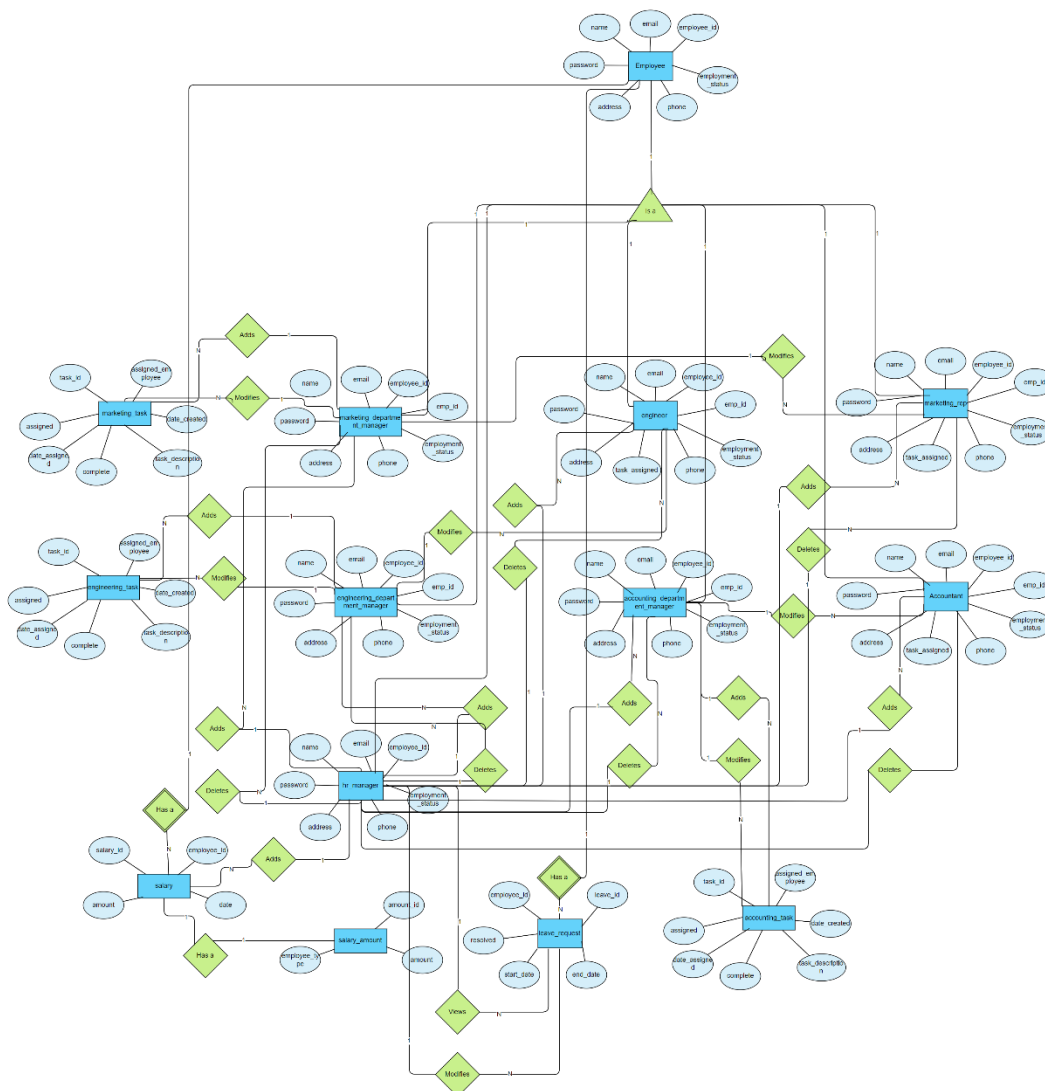
We will have 14 tables in this database. The first table will be the employee table. It will be the parent object from which other employee types inherit from. It contains the common descriptions employees have.

The second entities are the employee types. There is an engineer, accountant and marketing_rep employee type. These will be inheriting from employee.

For each employee type, there exists an employee manger. They are also employees that will be inheriting from the employee type. There is the engineering_department_manager, accounting_department_manager, and the marketing_department_manager. Their jobs will be creating different tasks and assigning tasks to employees. The tasks table will be storing these tasks.

The tasks table has been vertically fragmented for people who will be creating tasks, and people who will be assigning those tasks.

The other type of employee is the hr_manger. They will be in charge of hiring new employees removing employees and making sure each paid employee gets their salary. For this, the payout_salary(list_of_ids, employee_type) method will be used.

This method will take in an array of employee ids and employee type, and pay employees an amount based on their type. Their types and associated paid income is stored in the salary_amount table for better flexibility.

The payout_salary(list_of_ids, employee_type, bonus) overrides the first payout_salary. Here, it also accepts a bonus amount to add to employee's salary. All salary that is paid will be kept track of in the salary table. This will help for tax Auditing or paid employee tracking purposes.

Another function that exists is the assign_task function. It has been overloaded across 4 types. The first one is the base one where it accepts an employee type and a taskID and assigns tasks to all mentioned employees. The second one is for the engineer employee type. It specifically accepts engineer type employees and a taskID and assigns to that employee. The third and fourth one are for the accountant and marketing_rep types.

Another table that exists is the leave_request table. This table will store all the leave requests employees submit in. Employees can accomplish this by signing in and entering a leave request. This request will be propagated to hr_managers and will be dealt with according to the case.