Business Rule

Since Company YY needs to build up a leave management system database to track their employee leave record data, so a database is designed to store all the data and information of employee leave data. Databases help to reduce the cost of paperwork and increase data consistency and data integrity and prevent loss of data.

Employee is the major part in the system. **For employee table** , All employees in the company have a unique employee ID with a constraint the employee ID must start with EM. Besides that, each employee only can assign to one department . Next, each employee only can have one supervisor. In addition, in the table employee it also store the information of the employee, such as employee name, gender, hire date, phone number, relation status, address ,salary amount , payment method for salary , status of salary and leave status that shows the status of the employee is active or non-active.

Each employee must have one and only one unique Emp_ID.

Employee can request one to many leaves .

Employee managed by one to one supervisor .

Employee belong to one to one department.

Employee days of leave available were recorded in one to one Current_Leave

Employee days of leave forward to next year were recorded in one to one Forward_Leave

For the supervisor table , A supervisor will assign to an employee to guild the employee work, and a supervisor ID is given to the supervisor, the supervisor ID must start with SV. Supervisor also can have only one department . Besides that, in the supervisor table also store the name of the supervisor.

Each supervisor must have only one unique supervisor ID, SV_ID.

Supervisor manage zero to many employee.

Supervisor have one to one department .

Supervisor can approve one to many leaves of an employee.

For Department table, department number and department name is store in this table. Department number must start with DE.

Each department must have only one department number, Dept_No.

Department has one to many employee.

Department can have one to many supervisor.

Department can keep one to many department_record

For Department_Record, it only store department number that must start with DE and leave record number that must start with RE. Department_Record store all the leave requests by employees from different department .

Department_Record kept one to one Department.

Department_Record stored one to one Leave .

For Leave table, leave record number is store as Recd_No in this table and it must start with RE. Other than that, employee ID that must start with EM and supervisor ID that must start with SV are store in this table. Besides, leave code that start with LV also store in this table that show the leave type. Next, approve status, leave date , back date store in this table, all of these information show an employee leave information such as how many day of the leave, when the leave start and when the leave end . An employee can take two consecutive different type of leave , as long as approved by supervisor and both period of leave did not clash .

Each Leave must have only one unique leave number, Recd_No.

Leave can request by one to one employee.

Leave can approve by one to one supervisor.

Leave can recorded in one to one Department_Record.

Leave can consists of one to many leave type.

For Leave_Type table, leave code that must start with LV is store in table, leave type name and leave type description also store in this table. This table store nine types of leave of the Company YY have annual leave , unpaid leave , sick leave , hospitalization leave , prolong illness leave , examination leave , maternity leave , paternity leave and marriage leave .

Each Leave_Type must have only one unique code, Lv_Code.

Each Leave_Type can have only one name .

Leave_Type belongs to one to one leave

For Current_Leave table , it stored the number of days of different types of leave still available for   an employee has at the current state(this year), Lv_Curr that must start with LC and it also store employee ID . Maximum days available of a year for   different types of leaves were 30 days available for annual leave . 15 days available for sick leave , 30 days available for hospitalization leave , 60 days available for prolong illness leave , 90 days available for maternity leave , 7 days available for paternity leave ,3 days available for marriage leave and 10 days available for examination leave . However the maximum days for unpaid leave available for different based on the years of service , if the year of service for an employee was below or equal to 5 years , the employee could only had 10 days of unpaid leave in a year . On the other hand , if the year of service for an employee was more than 5

years , the employee could had 20 days of unpaid leave . Unpaid leave was only applicable when annual leave was fully utilized .

An employee which was male and single have annual leave , unpaid leave , sick leave , hospitalization leave , prolong illness leave , examination leave and marriage leave .

An employee which was male and married had annual leave , unpaid leave , sick leave , hospitalization leave , prolong illness leave , examination leave and paternity leave

An employee which was female and single had annual leave , unpaid leave , sick leave , hospitalization leave , prolong illness leave , examination leave and marriage leave .

An employee which was female and married had annual leave , unpaid leave , sick leave , hospitalization leave , prolong illness leave , examination leave , maternity leave , paternity leave and marriage leave .

Each Current_Leave must have unique code for record of an employee , Lv_curr .

Current_Leave record one to one employee days available for different types of leave

For Forward_Leave table , the numbers for days of leave that an employee can carry forward to next year is store in this table, Lv_Next, this record must start with LN. Employee ID also store in this table. Among all types of leaves, only Annual leave could be forward to next year , the days of annual leave could be forward by an employee was based on certain rule , if the years of service for an employee was less than 5 years , employee could only forward 1 to 10 days of annual leave to next year . On the other hand , if years of service for an employee was more than 5 years , employee could forward 1 to 20 days of annual leave to next year .

Forward_Leave record one to one employee's days of annual leave forwarded to next year