Vacation Tracking System - VTS

DOCUMENTATION

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Vision

The main goal of this software is to simplify the Humen Resources – HR department and minimize the management activities (**noncore ones**) and give the employees the sense of empowerment and the ability to manage their vacations. Improving the internal business process of the organization, respecting the time it takes to manage vacations requests (since all vacation requests requires immediate manager approval and someone from the HR department before it is accepted) our automated system hear will speed up the process (it might only require a single manual approval by the immediate manager).

The system will save the HR dept time and decrease the overall time of the vacation requests.

Actors of the scene

We have four actors in the scene:

1- **Employee**: The main user of the system. Uses the system to manage his/her vacation time.

2- **Manager**: Employee who has all the abilities and goal of a regular employee, but can also approve or reject vacation requests for his immediate employees. He may also award his direct employees a personal leave time, according to certain limits which been set in the system.

3- **HR Clerk**: Member of the HR department who has rights to view employee's personal data and responsible for ensuring that employee's information in all HR systems is up to data and correct. He can add or remove any record in the system. (HR Clerks may or may not be employees) if they are employees, they use two separate login IDs to manage these two different roles (also mentioned in the functional requirements).

4- **System Admin**: He is responsible for the smooth running of the system's technical resources (web server and the database) and collects and archive all log files. (responsible for the infrastructure but he is also an employee).

Functional Requirements

1- The manager has the ability to approve or reject the request (optional).

2- The employee has the ability to access his previous requests for one year, and make requests up to a year and a half in the future.

3- Provides an email notification requesting the manager to approve an employee request and notify the employee once the request status changes.

4- Uses the portal single – sign – on mechanism for all authentication (which means the application should have the ability to integrate with the company existing software – this point will be discussed later).

5- Logs all transactions made in the system (having activity log).

6- HR and system administrator should be able to override all actions restricted by rules, and these overrides should be also logged.

7- Managers should have the ability to directly award his employees a personal leave time (according to the system limits).

8- Provides an API endpoint for other internal system to query any given employee's vacation request summary.

9- The system displays the categories of vacation time.

10- The employee can select from the categories of the vacation time within his available balance of vacations.

11- The employee should have access to visual Calander to select and compare vacation chosen dates.

12- The employee should enter a short title and description to provide the manager more information.

13- The system validates the form before informing the manager, if not valid then the web page is redisplayed highlighting the errors for the employee given him the opportunity to cancel or change the request information.

14- Interfaces / integrates with the HR department legacy systems to retrieve required employee information and changes has been made.

15- The HR should have the ability to add or remove any record in the system.

16- If the HR Clerk is an employee he should sign is using two different IDs.
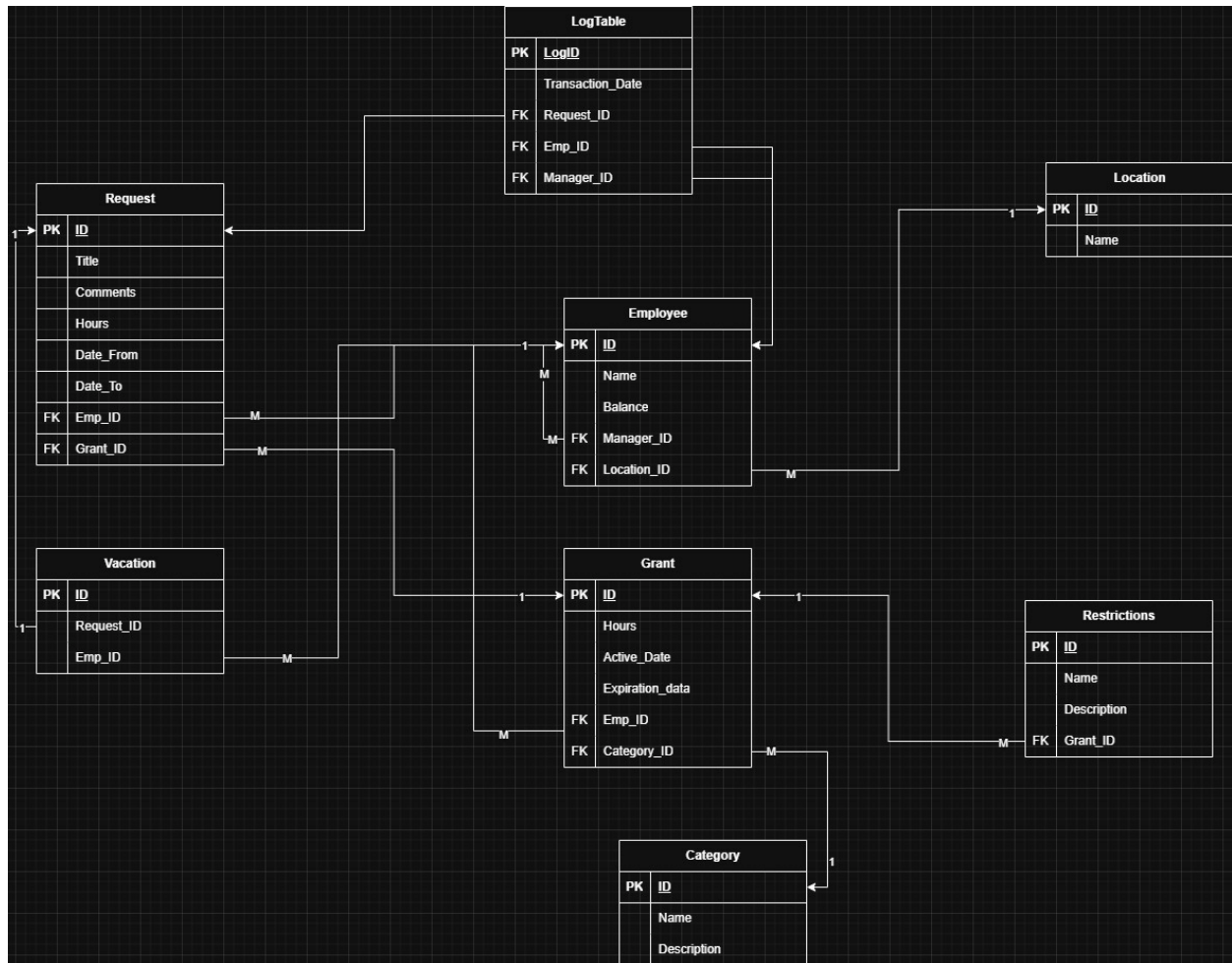
Non – Functional Requirements

1- **Usability**: The system must be easy to use.

2- **Integration**: The system is implemented as an extension to the existing internet portal system.

3- **Scalability**: The system should have the ability to scale and add new features and integrate with systems related to the facility.

4- The system will use existing hardware and middleware.
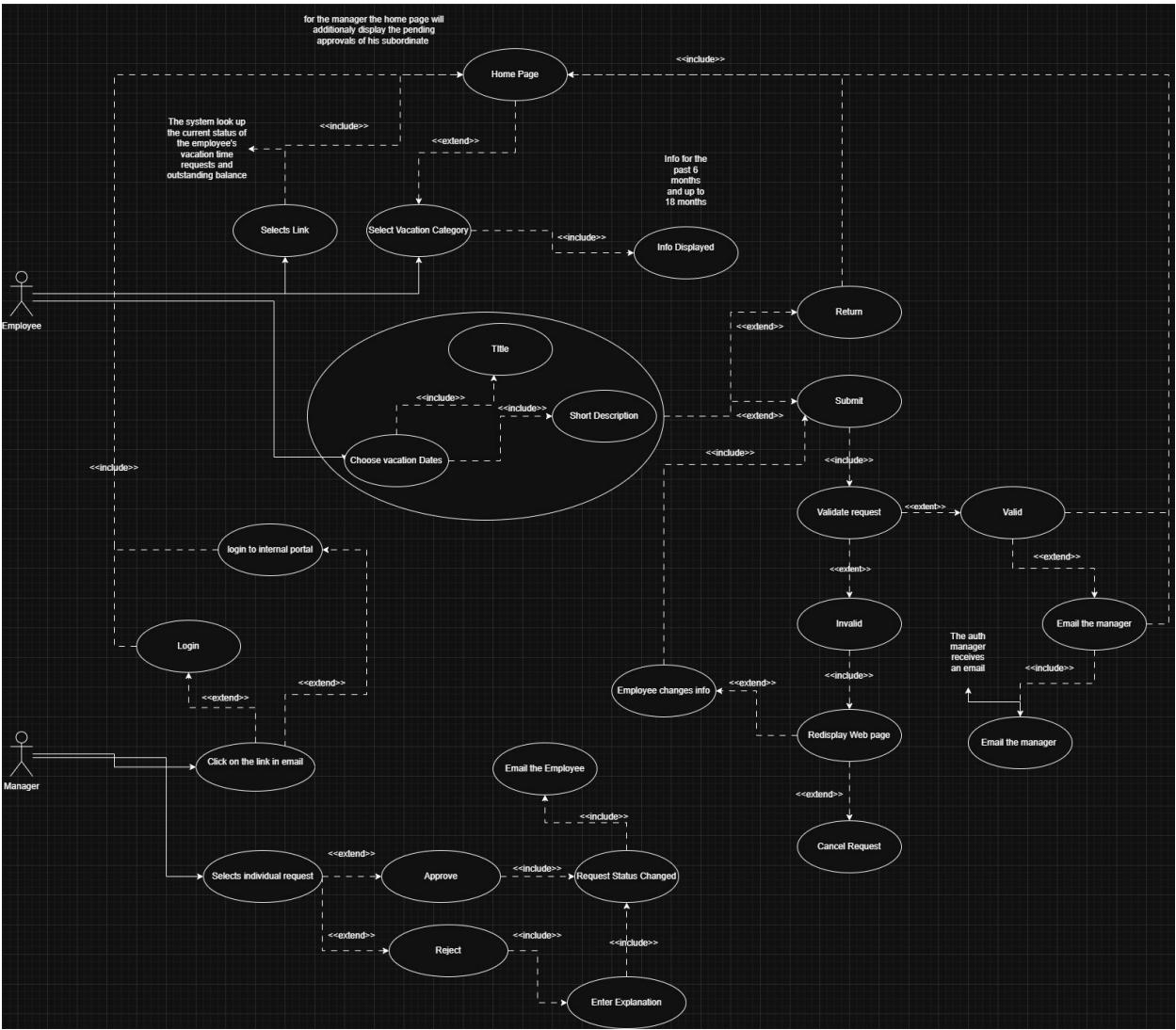
The Business Requirements and Constraints

- All employees work eight hours a day.

- Each employee's vacation time requests are subject to the restrictions of each employee's primary work location in addition to overall company policies and restrictions.

- Vacation requests validation rules are defined and owned by the HR department.

- An employee can't take more than x consecutive days of leave for Y type of grant.

- Vacation time of type X cannot be taken when directly adjacent to a company or location – specific holiday.

- Vacation time may not be granted when there is only x number of employees scheduled to work from a predefined list of Y employees (there is short of employees count).

- Vacation time may not be granted on specific dates.

- Vacation time of a certain type is limited to certain days of the week.

Note: All specific constraints are in the company police maintained by the HR department.

Data Model

LogTable

PK	LogID
	Transaction_Date
FK	Request_ID
FK	Emp_ID
FK	Manager_ID

Location

PK	ID
	Name

Request

PK	ID
	Title
	Comments
	Hours
	Date_From
	Date_To
FK	Emp_ID
FK	Grant_ID

Employee

PK	ID
	Name
	Balance
FK	Manager_ID
FK	Location_ID

Vacation

PK	ID
	Request_ID
	Emp_ID

Grant

PK	ID
	Hours
	Active_Date
	Expiration_data
FK	Emp_ID
FK	Category_ID

Restrictions

PK	ID
	Name
	Description
FK	Grant_ID

Category

PK	ID
	Name
	Description

Use Case Diagram

Sequence Diagram

Employee Scenario

Employee should be authenticated to access the portal

Manager Scenario

Manger should be authenticated to access the portal