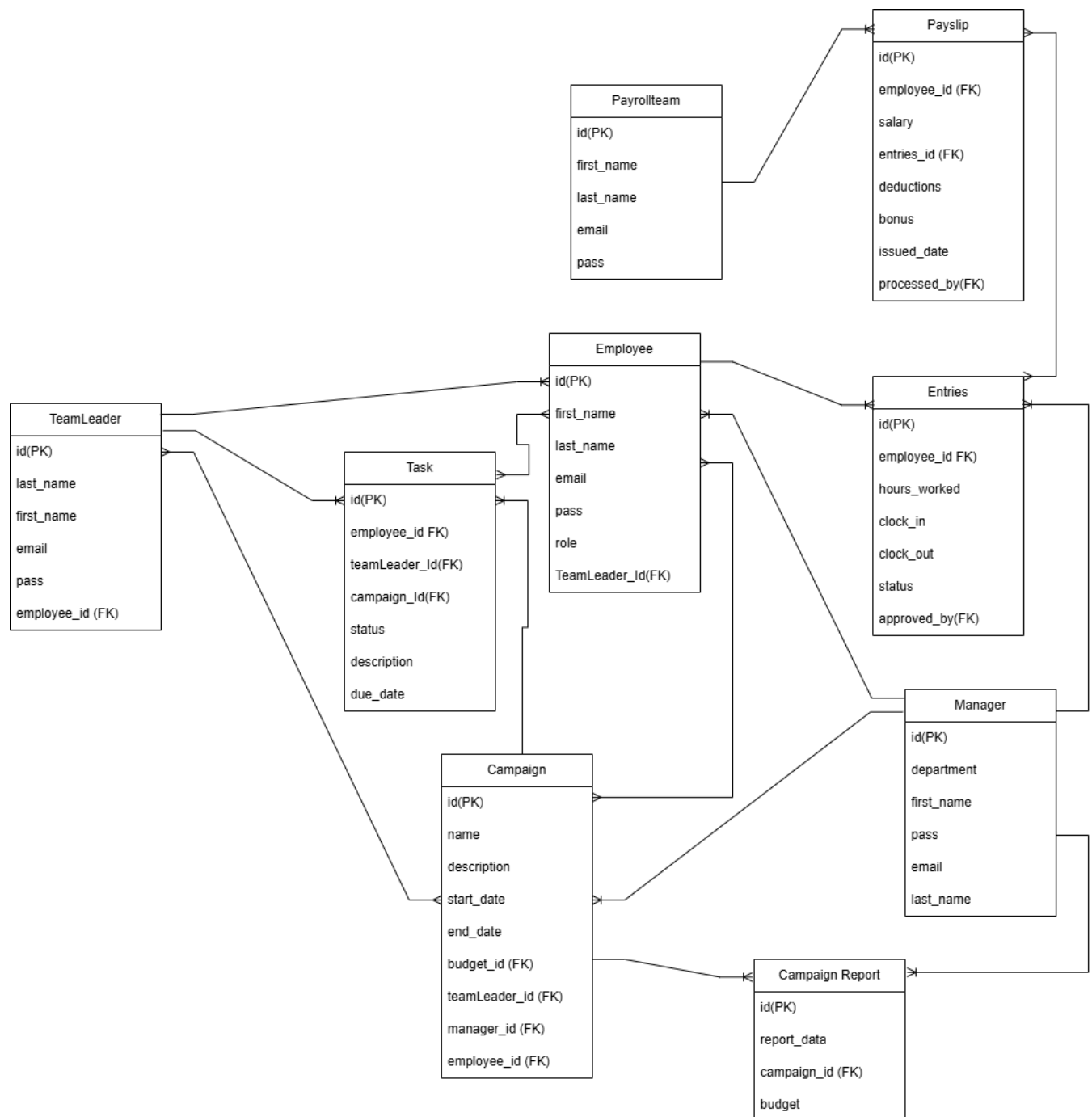


ENTITY-RELATIONSHIP DIAGRAM (ERD)



Overview:

The ERD (Entity-Relationship Diagram) provides a full picture of the database structure used in this system. It includes the main entities, their attributes and the relationships between them. The database is designed to support the must-have use case: Payroll (Employee-Entries), as well as all the other supporting use cases like assigning tasks, reviewing entries, and managing campaigns based on the theme advertising

This ERD helps make sure that the system's back-end is well-structured, normalized, and aligned with the functional needs of the project.

Entities and Attributes:

Here are the main entities included in the ERD, along with their important attributes:

1. Employee

id (PK)

first_name

last_name

email

pass

role

TeamLeader_Id(FK)

Each employee has their own account in the system, where they can submit work entries and view their payslips.

2. TeamLeader

id (PK)

last_name

first_name

email

pass

employee_Id(FK)

Team leaders are linked to employees and are responsible for assigning them tasks in campaigns.

3. Manager

id (PK)

last_name

department

first_name

email

pass

email

Managers are responsible for approving entries, assigning employees to campaigns, and generating reports.

4. Campaign

id (PK)

name

description

start_date

end_date

budget_id(FK)

manager_id (FK)

teamLeader_id(FK)

employee_id(FK)

Campaigns are created and monitored by managers. Employees can be assigned to them and complete tasks within them.

5. Task

task_id (PK)

description

employee_id(FK)

campaign_id (FK)

status

teamLeader_id(FK)

due_date

Tasks are assigned to employees by team leaders within specific campaigns.

6. Entry

id (PK)

employee_id (FK)

hours_worked

clock_in

clock_out

status (e.g. pending, approved)

approved_by (FK- in reference to manager)

This table stores the entries submitted by employees, which are later reviewed and approved by managers.

7. Payslip

id (PK)

employee_id (FK)

entry_id (FK)

salary

deductions

bonus

issued_date

processed_by (FK- in reference to PayrollTeam)

This stores payroll information based on the approved entries.

8. PayrollTeam

id (PK)

first_name

last_name

email

pass

Handles processing of payroll once entries are approved.

Relationships Summary

One Manager can manage many Campaigns.

One Campaign can have many Tasks.

One TeamLeader can supervise many Employees.

One Employee can submit many Entries.

Each Entry is linked to one Employee, and one Manager approves it.

Each Entry that gets approved becomes part of the Payroll.

One PayrollTeam member can process many Payroll records.

How the ERD Supports the Use Cases

Payroll (Employee-Entries):

Employees create entries then Managers approve entries, Payroll Team then processes payroll and allows Employee to view payslip. This is directly reflected in the Entry and Payroll entities, with relationships tying them to Employee, Manager, and PayrollTeam.

Assign Employees to Campaigns/Tasks:

Managers assign employees to campaigns (via relationships in Campaign) and Team Leaders assign tasks (using the Task entity and assigned_to field).

View Payslip:

The Payroll entity connects entries to payment records, which are then displayed in the system to employees.

Generate Reports:

The Campaign, Entry and Payroll tables can all be queried by managers to generate campaign performance and payroll reports.

Conclusion

This ERD structure supports all major system functions while keeping data organized and scalable. A visual ERD diagram is included in the document to help show how these entities are connected.